



LYNN



TRANSIT ACTION PLAN

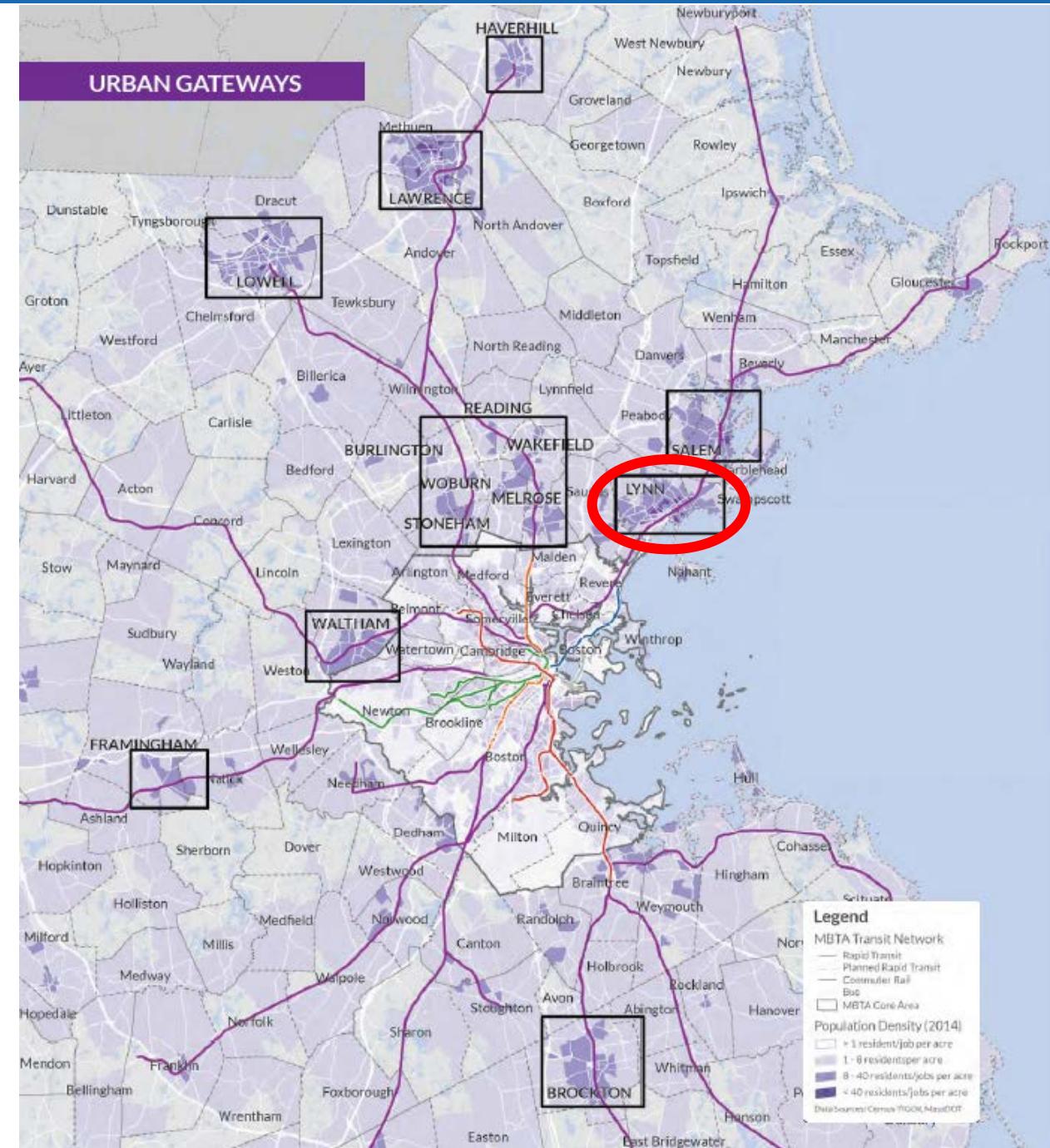
Open House
February 11, 2020

Presentation Topics

- Overview of the Transit Action Plan
- Stakeholder Outreach and Existing Conditions
- Potential Improvement Strategies
- Next Steps

Context for Lynn Transit Action Plan

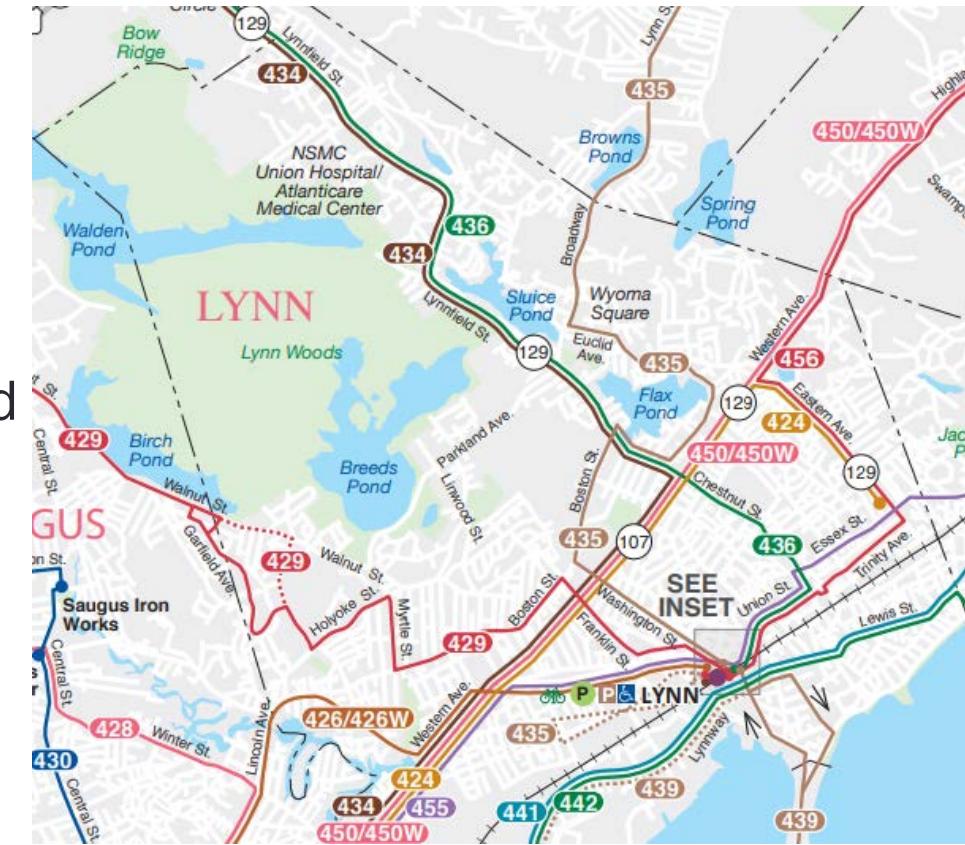
Focus40, the MBTA's investment plan highlighting the needs of Greater Boston between now and 2040, identifies Lynn as a "Priority Place" within the existing transit network that would benefit from and can support higher quality service.



Purpose of the Lynn Transit Action Plan

Launched in 2019 to:

- Holistically assess transit demand and needs in Lynn across four modes – bus, commuter rail, ferry, and rapid transit
- Identify strategies to make transit services in and around Lynn **faster, more reliable, and better matched to where people need to go** – including employment hubs and resources in Lynn, Boston, and across the North Shore
- Consider how transit improvements can **leverage Lynn's location near Boston** to better position the City to fully participate in the region's economic growth



Goals and Objectives

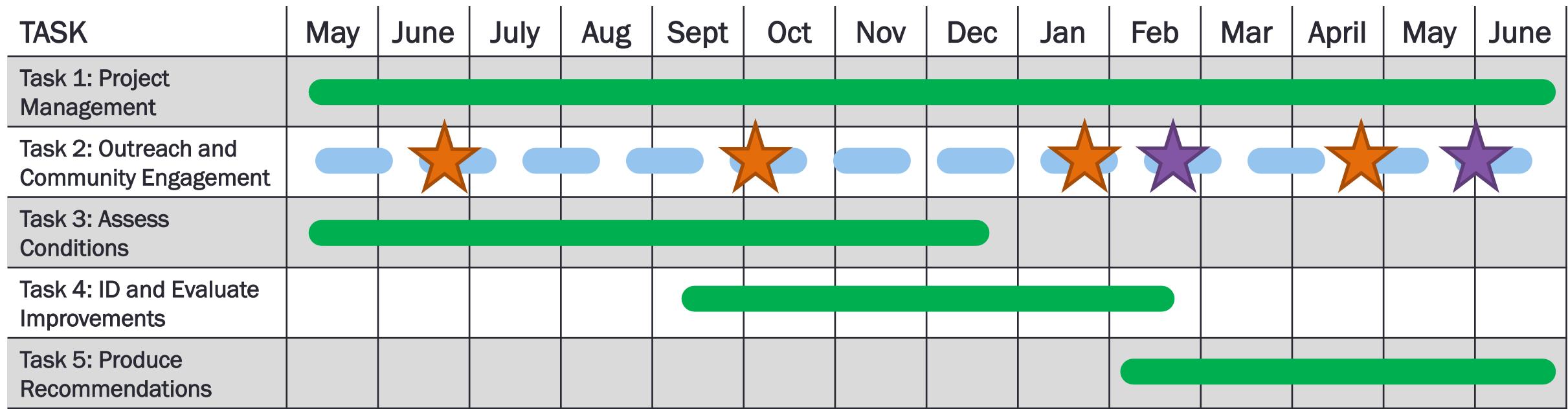
Pursue changes and improvements to the transit system that support the 3E's:

Equity: Pursue mobility improvements that ensure all users, including disadvantaged populations, have high-quality transit that provides access to the resources they need.

Economic Development: Pursue mobility improvements that support the local economy while improving access to regional nodes

Environment: Pursue improvements that promote sustainable transportation choices and the advancement of resiliency and GHG reductions.

Project Schedule



A thorough evaluation of costs, ridership potential, and operational feasibility, as well as conversation with key Lynn stakeholders, will inform the ultimate recommendations.

★ Advisory Committee meeting

★ Public meeting

Stakeholder Briefings

- Three Advisory Committee Meetings
- Lynn Schools Superintendent and Transportation Director
- City of Lynn Department of Public Health
- City of Lynn Department of Public Works
- City of Lynn Housing Authority
- Mass Senior Action Council
- New Lynn Coalition
- North Shore Latino Business Association
- Lynn YMCA
- MBTA Bus Operators at Lynn Garage
- City of Revere Economic Development Director

What we heard?

- Interest in **shorter-term actions**
- Concern about **traffic congestion**
- **Access** to hospital, airport, malls, schools
- Older adults who depend on **The RIDE**
- Lack of **knowledge/information** about current MBTA services
- Bus onboard payment, double parking contribute to delay
- Concern about **parking availability**

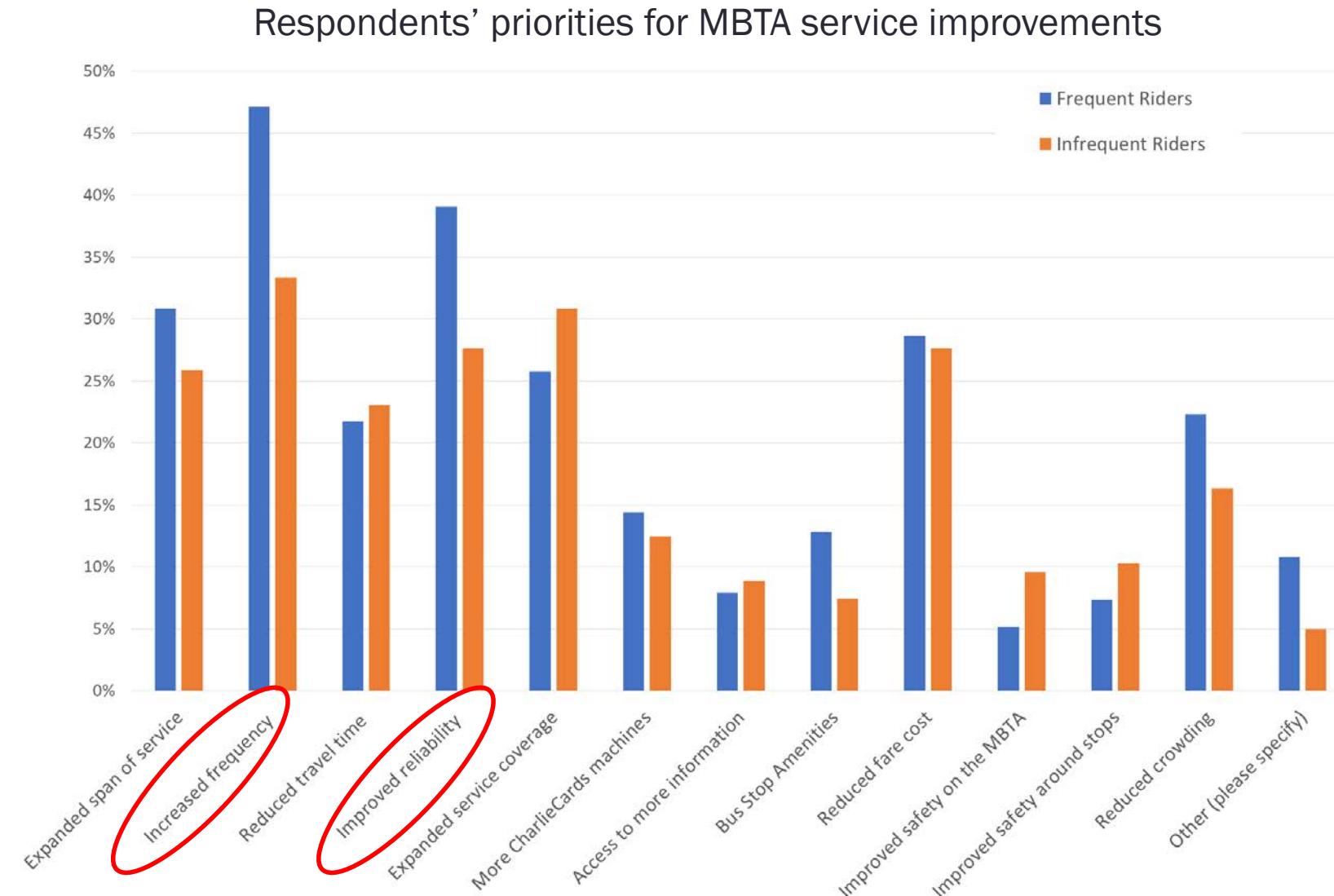
Public Input Survey

- Survey open from September to November 2019
 - **1,081 total responses**
 - 93% of responses in English
 - 6% in Spanish
 - 1% in Haitian Creole, Portuguese and Russian
- Questions asked about
 - Frequency of transit use and specific types and routes
 - Destinations accessed by transit
 - Preferences around mode choice and priorities for improvements
 - Demographic information (optional)



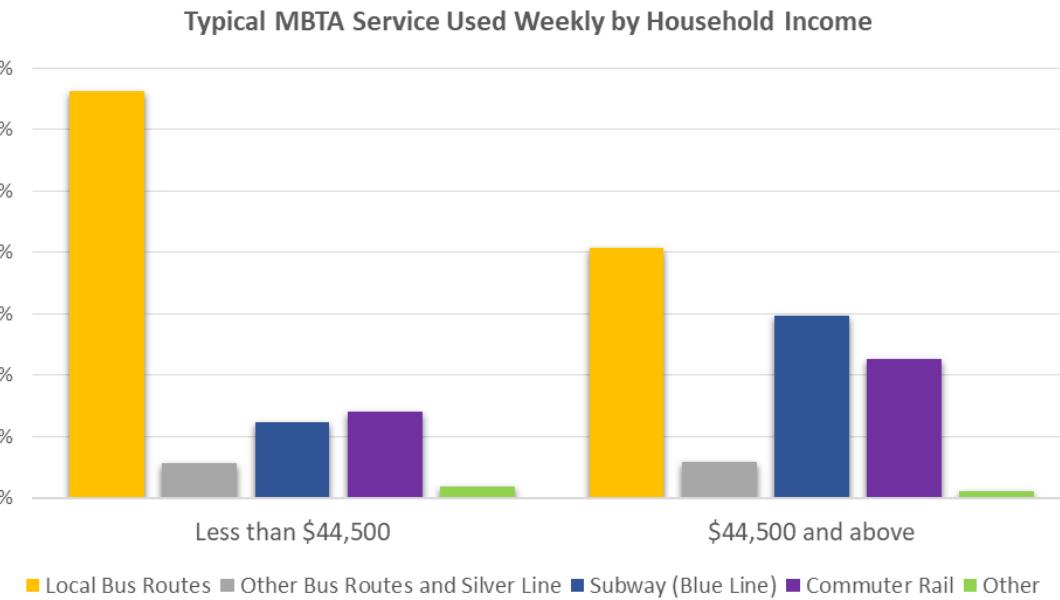
What We Heard: Frequent and Non-Frequent Riders

- 50% of frequent riders use the MBTA as their primary mode of transportation
- Top reasons frequent riders use the MBTA were preference for not driving, lack of access to a car, and cost of parking



What We Heard: Low Income and Non-Low Income Respondents

- Lower income households reported **using transit, and specifically local buses, at higher rates than higher income households**
- **Fare cost** was the top reason among **lower income households** for not using the MBTA more often
- **Preference for driving** was the top reason among **higher income households** for not using the MBTA more often

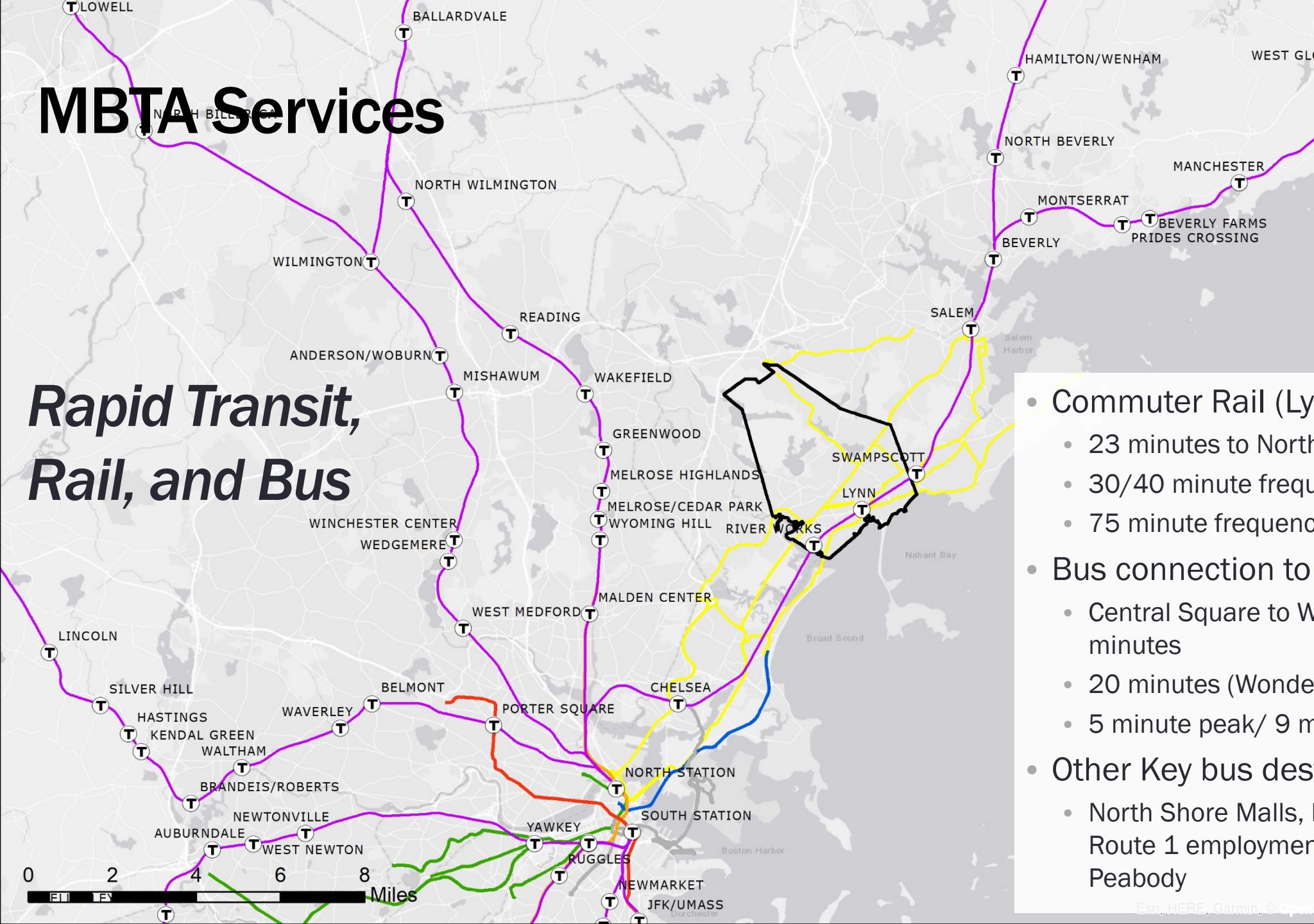




EXISTING CONDITIONS

MBTA Services

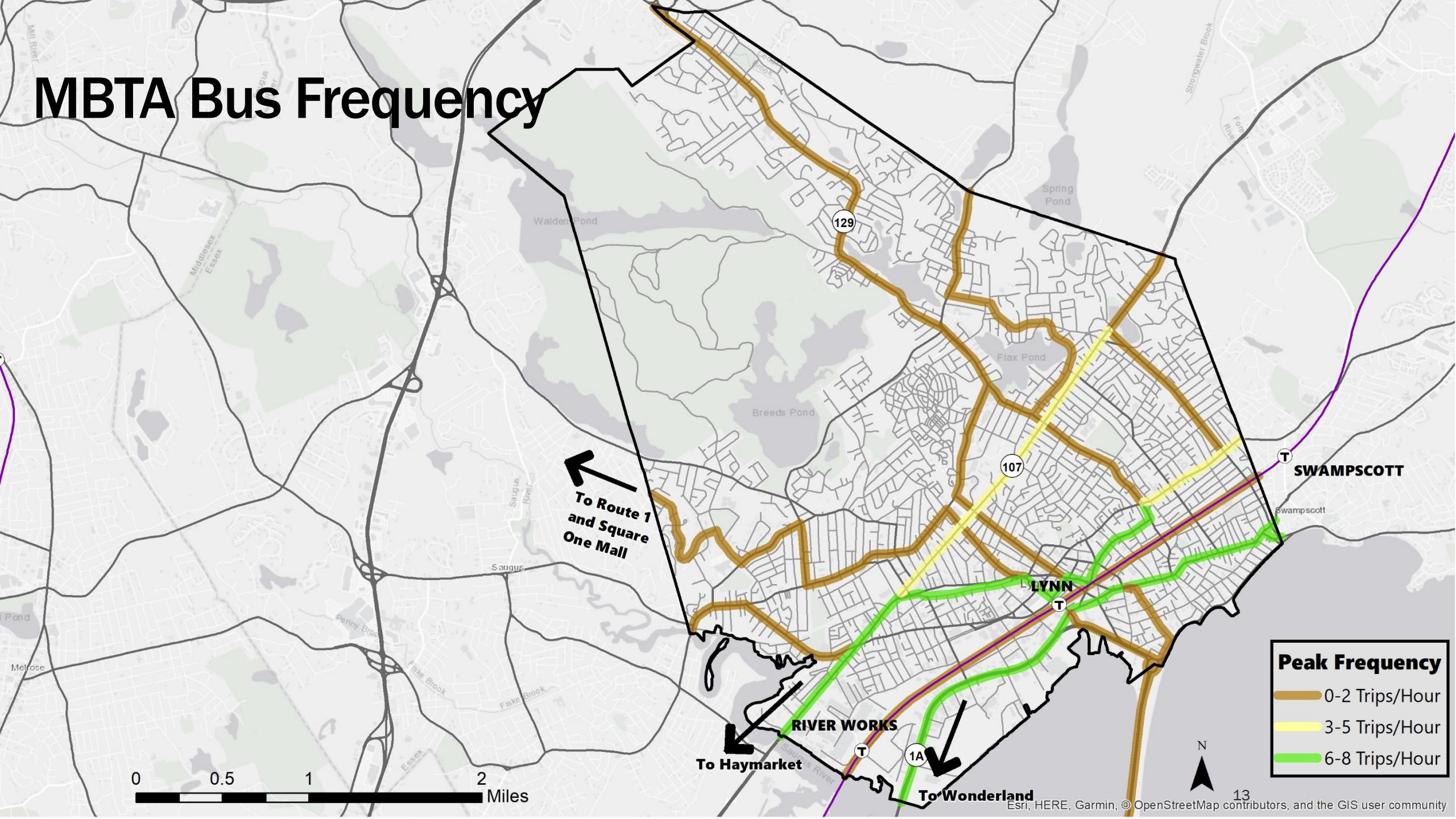
Rapid Transit, Rail, and Bus



Legend	
Lynn City Boundary	
MBTA Buses	
MBTA Blue Line	
MBTA Green Line	
MBTA Orange Line	
MBTA Red Line	
MBTA Silver Line	
MBTA Commuter Rail Line	
MBTA Commuter Rail Station	

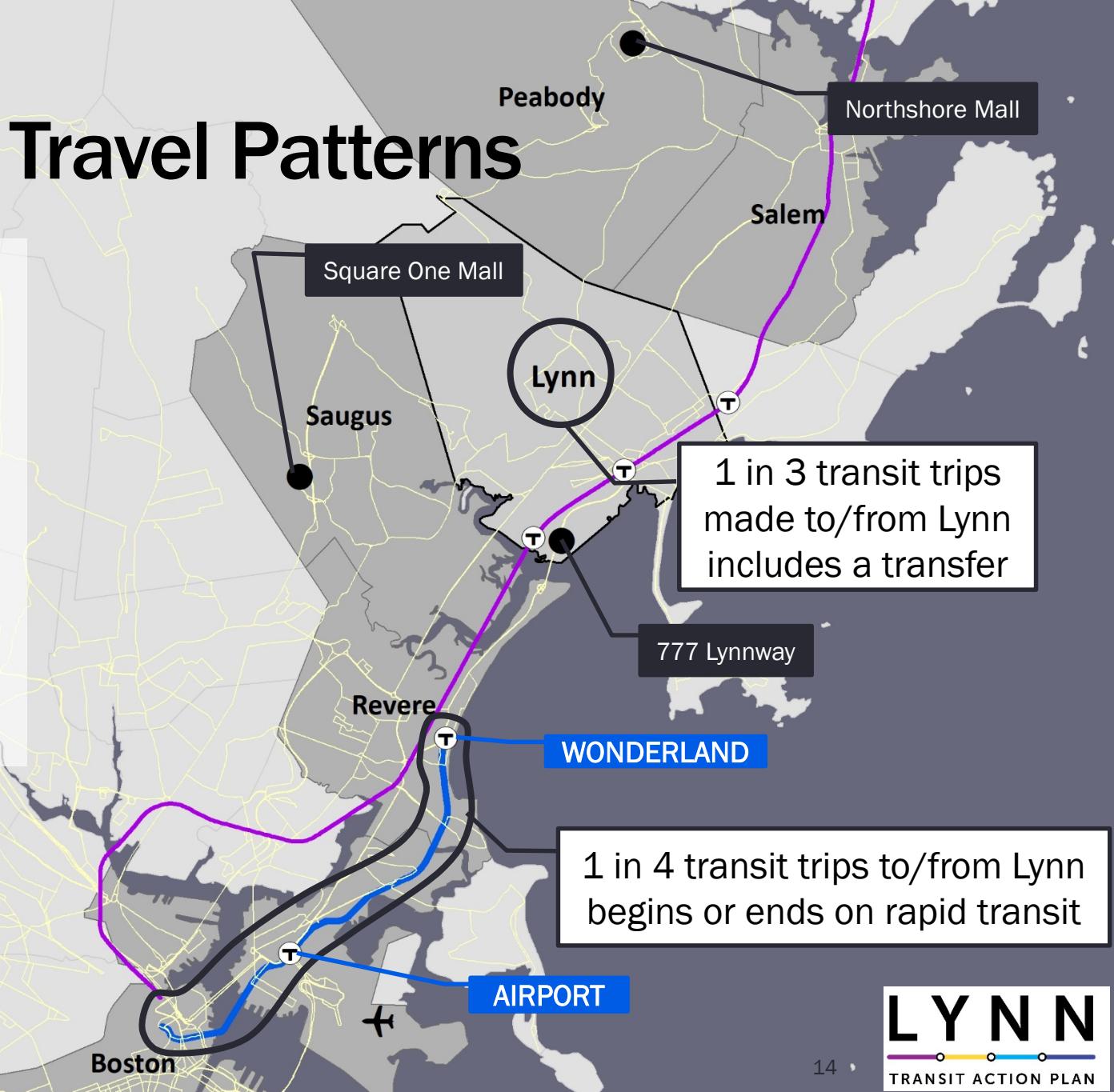
- Commuter Rail (Lynn Station)
 - 23 minutes to North Station
 - 30/40 minute frequency (AM/PM peak)
 - 75 minute frequency off-peak
- Bus connection to Blue Line
 - Central Square to Wonderland: ~15-30 minutes
 - 20 minutes (Wonderland to State)
 - 5 minute peak/ 9 minute off-peak frequency
- Other Key bus destinations include
 - North Shore Malls, Middle and High Schools, Route 1 employment centers, Salem, Peabody

MBTA Bus Frequency



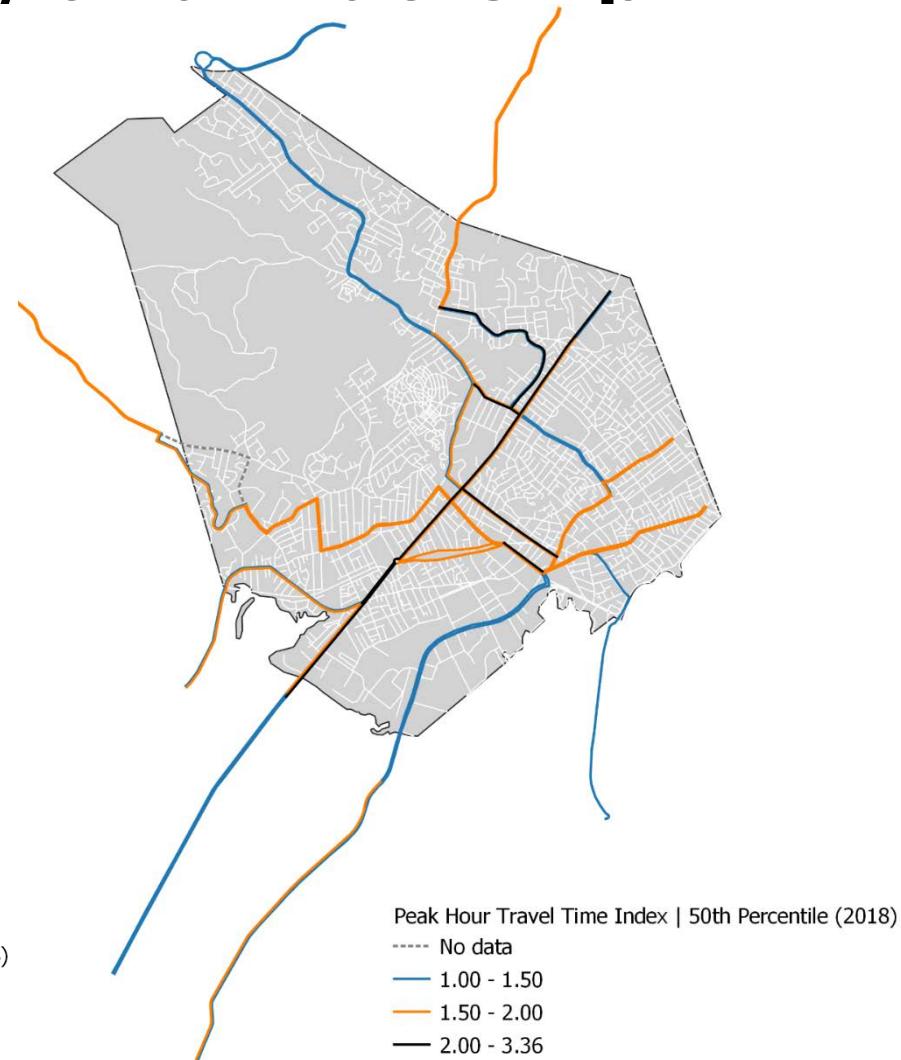
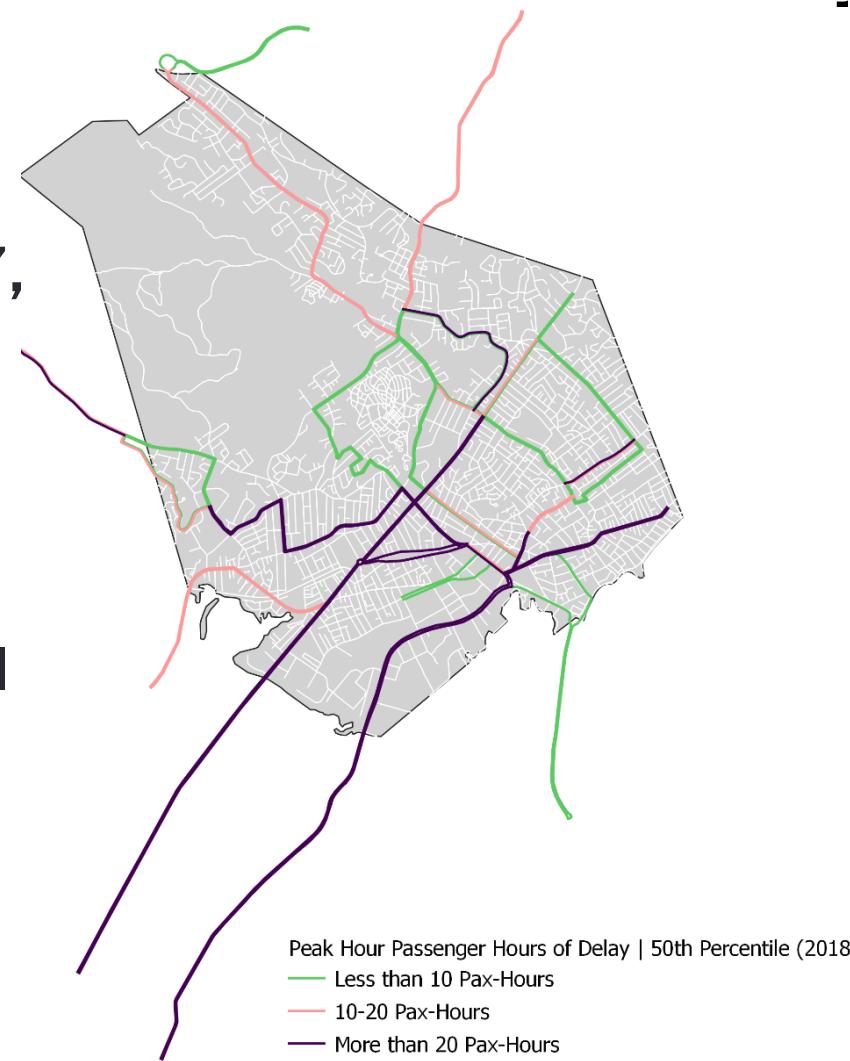
Existing Bus + Subway Travel Patterns

- Travel patterns identified in MBTA origin-destination pattern dataset
 - Nearly a third of trips starting in Lynn end in Lynn
 - Intra-Lynn trips highest during the midday and morning periods, especially during the early afternoon (1-4pm)
 - Airport Blue Line stop popular in the evening periods, as well as on the weekend
 - Shopping centers rank highly on weekends and evenings



Existing Bus Conditions – Bus Delay and Ridership

- Corridors with high passenger-hours of delay include **Route 107, Route 1A, Common St, Market St, Broad St, Boston St**
- Corridors with the highest peak hour travel time index include **Route 107, Market St, Washington St**



Existing Commuter Rail Conditions

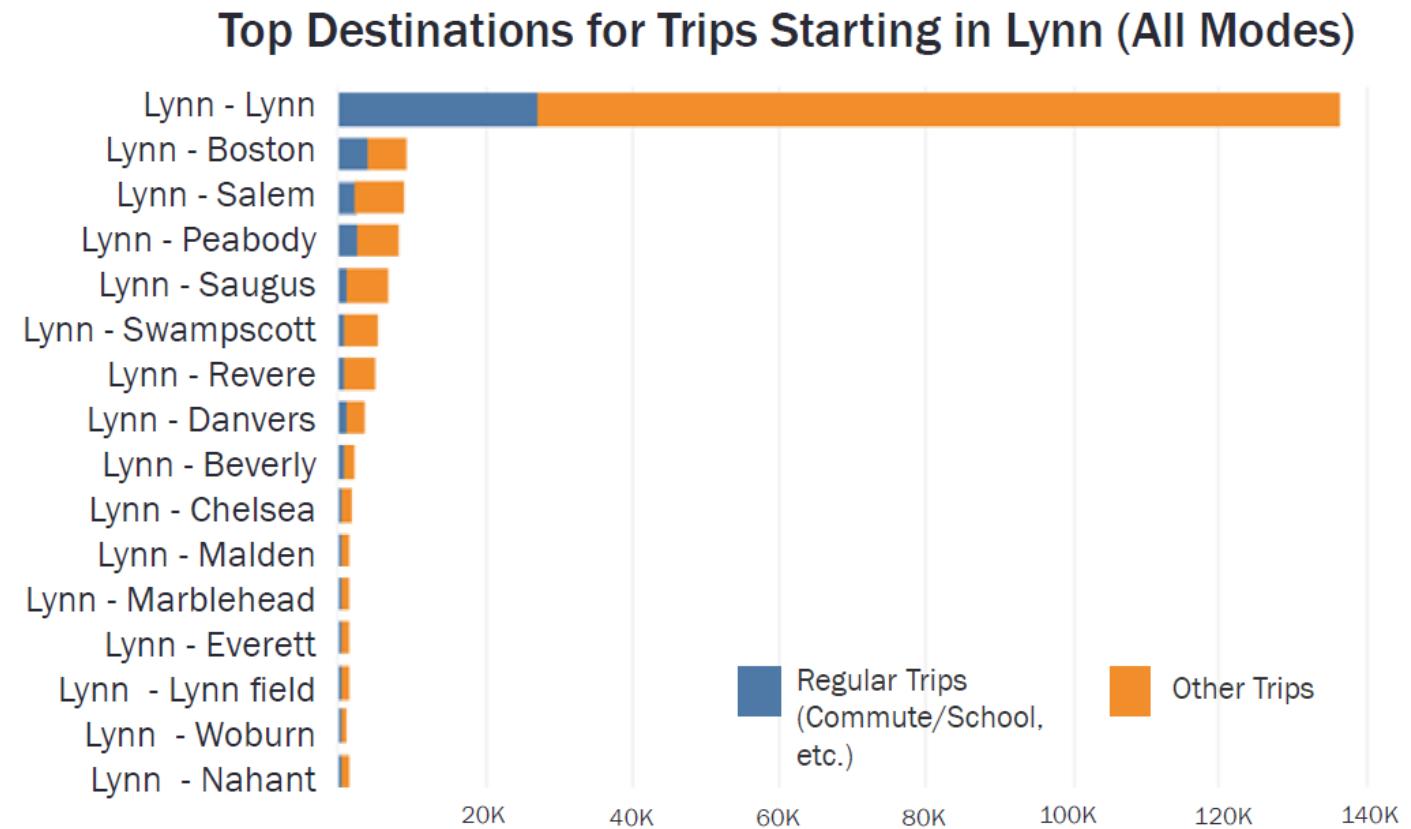
- Commuter Rail Usage
 - Existing frequency at Lynn is every 30-40 minutes during peak and every 30-80 minutes during off-peak periods.
 - Lynn averages approximately **600 Commuter Rail riders per day**, with about 2/3 of trips to/from Boston or Chelsea.
 - Peak hour Newburyport/Rockport Trains **frequently operate at or above capacity**
 - Lynn Commuter Rail Parking Garage has considerable available capacity

Month	Occupancy Averages								Days in Month with Occupancy of:			
	Total	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	< 50%	50% - 75%	75% - 90%	> 90%
July	44%	47%	46%	48%	46%	43%	38%	39%	29	2	0	0
August	44%	46%	47%	47%	46%	44%	39%	40%	31	0	0	0
September	46%	51%	50%	52%	51%	47%	38%	39%	18	12	0	0
October	49%	51%	52%	54%	53%	48%	40%	42%	13	18	0	0
November	50%	54%	54%	54%	52%	48%	41%	44%	13	17	0	0
December	48%	49%	52%	53%	53%	49%	41%	44%	18	13	0	0
January	52%	53%	54%	55%	54%	52%	51%	44%	10	20	1	0
February	54%	54%	70%	60%	54%	53%	42%	44%	10	18	0	1
March	47%	50%	50%	51%	49%	48%	43%	44%	19	12	0	0
April	50%	52%	53%	55%	52%	50%	42%	43%	11	19	0	0
May	51%	52%	55%	55%	54%	51%	44%	45%	10	21	0	0

Note: Tuesday February 12th there was a street parking ban in Lynn. During this time the garage was free to park in.

General Travel Patterns in Lynn and the North Shore

- For all trip purposes, trips within Lynn are most common, and are spread evenly across the day.
- **88% of all weekday trips** starting in Lynn end within the North Shore



Translating Existing Conditions into Improvements

- The majority of trips from Lynn are local or within the North Shore, but connections to Boston are important for **job access and economic development**
- Commuter rail garage has capacity for additional vehicles; the service has **potential for higher frequency**, but may **currently lack capacity** to absorb additional riders during the peak period
- Existing bus routes **serve most of the high demand destinations**, but **off-peak bus frequency doesn't serve all potential demand** to access some locations (Peabody, Saugus)
- Some corridors experience **high levels of bus delay**
- Rider-friendly bus amenities are not widespread in Lynn, but recent efforts to **expand access to CharlieCards** is addresses some issues

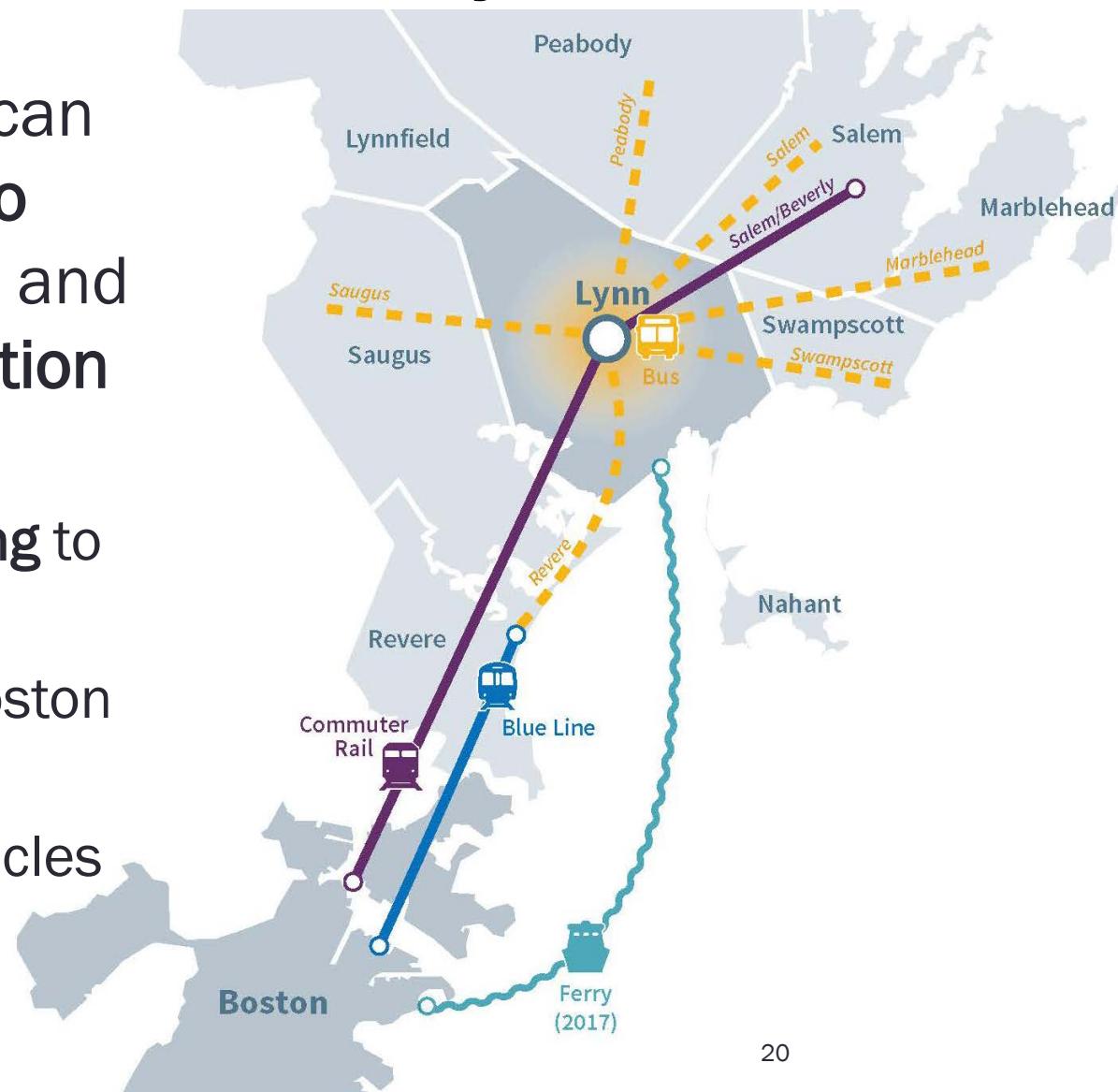


OVERVIEW OF POTENTIAL TRANSIT IMPROVEMENT STRATEGIES

Potential for Mobility Improvements in Lynn

A robust public transportation system can further support the **residents of Lynn to prosper, the region's economy to grow, and the Commonwealth to address congestion and climate challenges.**

- Increase **use of transit, walking, and biking** to reduce congestion
- Improve access to **housing and jobs** in Boston and across the North Shore
- Focus on **moving people**, rather than vehicles



Commuter Rail Transformation and Improvements

- The Fiscal Management and Control Board (FMCB) endorsed a future rail system with **higher frequency, electrification, and improved access** (first/last mile, parking, fares)
- The FMCB identified the **Newburyport/Rockport Line trunk for the initial phase**. The Rail Transformation effort is examining:
 - Increased service frequency
 - Electrification
 - Potential connection at Wonderland Blue Line Station
- MBTA is procuring a design consultant to develop a **rehabilitation program for the station and garage**
- **MBTA Commuter Rail Fare Zone** study due to Legislature March 15
- Blue Line Feasibility Study conducted as a separate effort



Evaluating the Market for Ferry Service to Boston

- Evaluate market demand for ferry service based on current trip-making
- Determine service characteristics, access needs, and land use conditions that could enhance or support a market for ferry
 - Enhancing connection between **Ferry terminal** and **Commuter Rail station** to create choices
 - Supporting transit-oriented development
 - Understanding the **extent of the catchment area** across the North Shore
- Identify how a ferry service could **complement the other transportation options** available (Commuter Rail, bus, etc.)



Status Update on Ferry Procurement

- In coordination with the City of Lynn, MassDOT has provided support for Lynn ferry procurement in the following capacity:
 - Developed a business plan
 - Conducted a market sounding Request for Information
 - Created technical specs for desired vessel
 - Released a Request for Proposals for vessel, which closes in February
- Next steps for Lynn include identifying local operating resources and creating an operating plan and other material required for grant obligation

Rethinking the Way the Bus Network Works

- The Bus Network Redesign is a complete reassessment of the MBTA's bus network to better reflect the travel needs of the region.
- Using location based data to redesign the bus system
- The Redesign is focused on answering the following key questions:
 - **Travel Demand:** What is the current travel demand in the region?
 - **Competitiveness:** Where is transit competitive? And how do we define “competitiveness”?
 - **Destinations:** What does local and regional travel look like?
- New network implemented beginning in mid-2022
- Planning for first round of public meetings in **March and April 2020.**

Implementing Bus Lanes as a Short-term Action



- Lynn has high bus ridership all day, and the **busiest corridors experience delay** due to traffic congestion
- Bus lanes are the **quickest way of improving service** for everyday riders and attracting new riders
- **Low capital costs, flexible implementation**
- Improves **travel time and reliability** for bus riders and potentially **improves traffic flow** for drivers
- Parking impacts are **often absorbed by underused off-street and side-street parking**
- Studies show people driving **make up a smaller share of retail shoppers** than business owners perceive

Successful Bus Lane Projects in the Region

- Sample of successfully implemented projects across the Boston region
 - Everett placed a peak-hour bus lane on Broadway – **each bus saves 8-10 minutes** during the morning rush hour
 - Boston placed an all-day facility on Brighton Ave – **each bus saves up to 8 minutes** during peak hours



Bus Lane Implementation Process

- Require approximately 12-feet of dedicated space
 - Typically requires using parking and/or general traffic lane
 - Sometimes requires curb modifications
 - Feasible to create bus + bike lane, depending on speed and bus frequency
- Design and implementation (including funding) is a **cooperative process** between MBTA & roadway owners
- Any project would include **public engagement/ stakeholder outreach**



Bus lane painting in Cambridge

Proposed Bus Lane for Western Ave/Route 107

- Segment has high ridership and experiences delay due to congestion
 - ~ 8,000 – 9,000 average/weekday
 - Bus riders make up to **40% of corridor users** in the peak
 - Provides connection to Boston and Salem
- All-day bus lane along **1.1 miles of Western Avenue** to save up to **12 minutes** in the peak periods, improving **bus speed and reliability**
- Parking impacts on **Western Avenue** can be absorbed on **side streets**



Proposed Bus Lane for Common Street

- Segment has high ridership and experiences delay
 - ~5,500 average/ weekday
 - Connection between downtown and Western Avenue
 - 71 bus trips in each direction
- All-day bus lane along **0.75 miles** to save up to **4 minutes** in the peak periods, integrating with the **Northern Strand**



Proposed Bus Lane for Lynnway

- Provides critical connection between Central Square and Wonderland, every 8 to 10 minutes during the peak periods
 - ~ 7,600 average / weekday
 - Traffic congestion can add 5 minutes in Lynn and up to 20 minutes on the whole corridor
- A bus lane would improve speed, reliability, and the pedestrian experience on this corridor – opportunity to **enhance transit option ahead of development**



Next Steps

- Share your input with us at this meeting!
- February – June
 - Continuing to gather input on potential improvement strategies
 - Finalizing strategies and recommendations in the Draft Plan

Thank You!

Alexandra Markiewicz

Project Manager

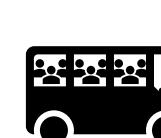
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www.mbta.com/lyntransit

Benefits of a Bus Lane

Why Bus Lanes?



Lynn has high bus ridership all day, and the **busiest corridors experience delay** due to traffic congestion



Bus lanes are the **quickest way of improving service** for everyday riders and attracting new riders



Low capital costs, flexible implementation



Improves **travel time and reliability** for bus riders and potentially improves traffic flow for drivers



Studies show people **driving make up a smaller share of retail shoppers** than business owners perceive



In addition to improving public transit, bus lanes can also benefit **school buses and emergency response vehicles**.

Requires 12-feet of dedicated space

- Typically uses parking and/or traffic lane
- Can require curb modifications
- Can include bicycle accommodations

Parking impacts are often **absorbed by underused off-street** and side-street parking

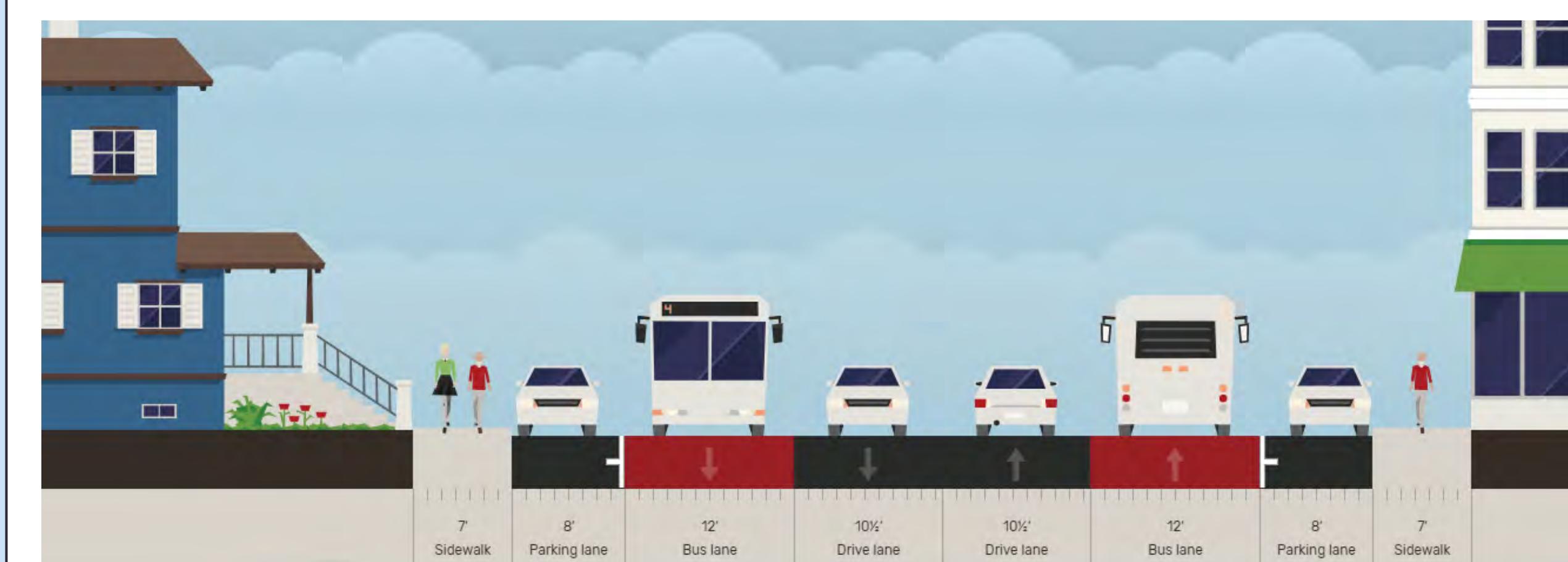
Design and implementation (including funding) is a **cooperative process** that includes **public engagement/ stakeholder outreach**

Center-Running Bus Lane



- Converts travel lanes into bus lanes
- Boarding islands with shelters, seating, and other amenities
- Provides pedestrian refuge islands for safer crossing
- Could retain dedicated turn lanes to maintain existing access

Curbside Offset Bus Lane



- Converts travel lanes into bus only lanes
- Boarding occurs adjacent to parking lanes
- Could include bicycle accommodations (e.g., shared bus-bike lane)
- Maintains parking

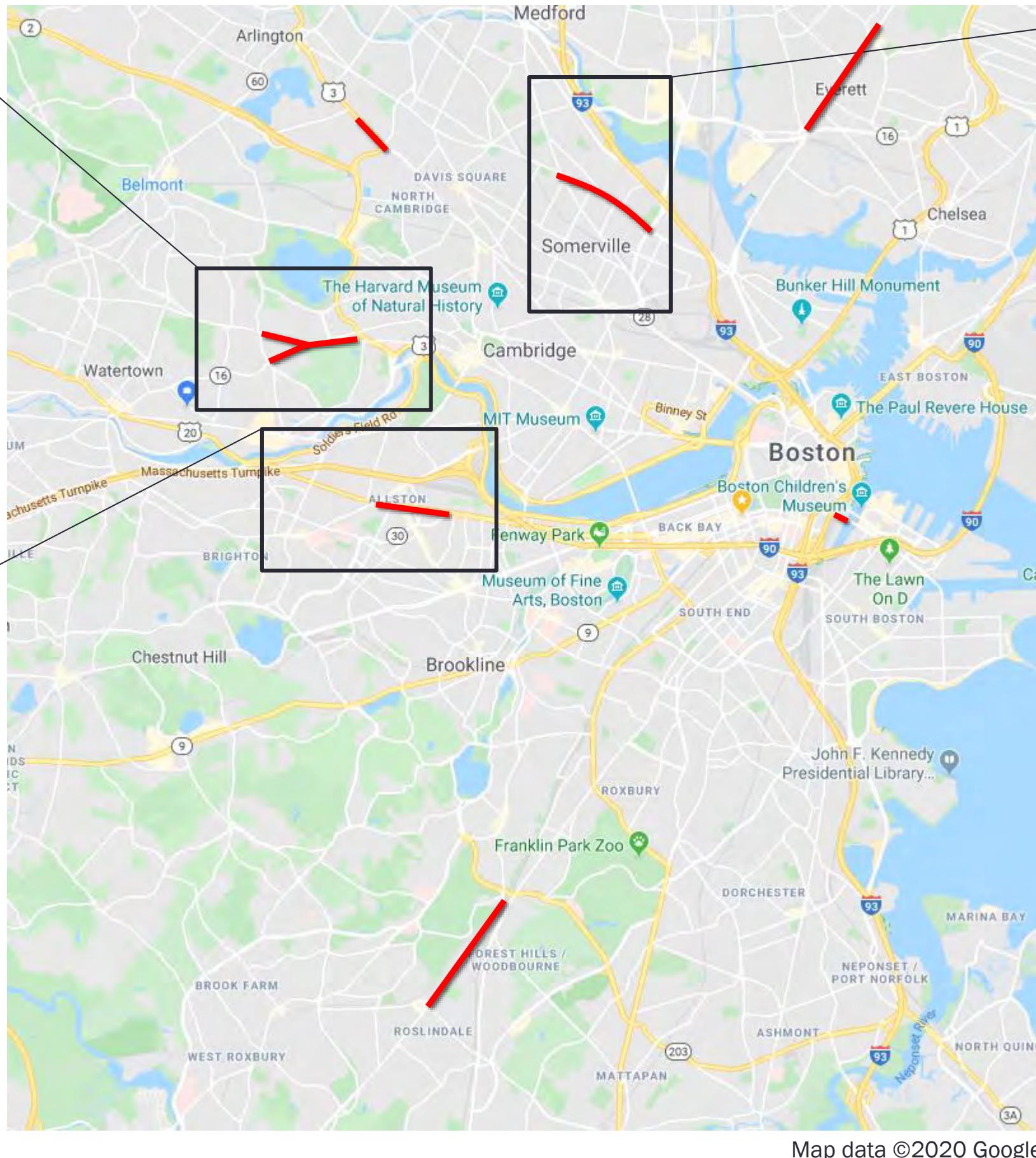
Curb-Running Bus Lane



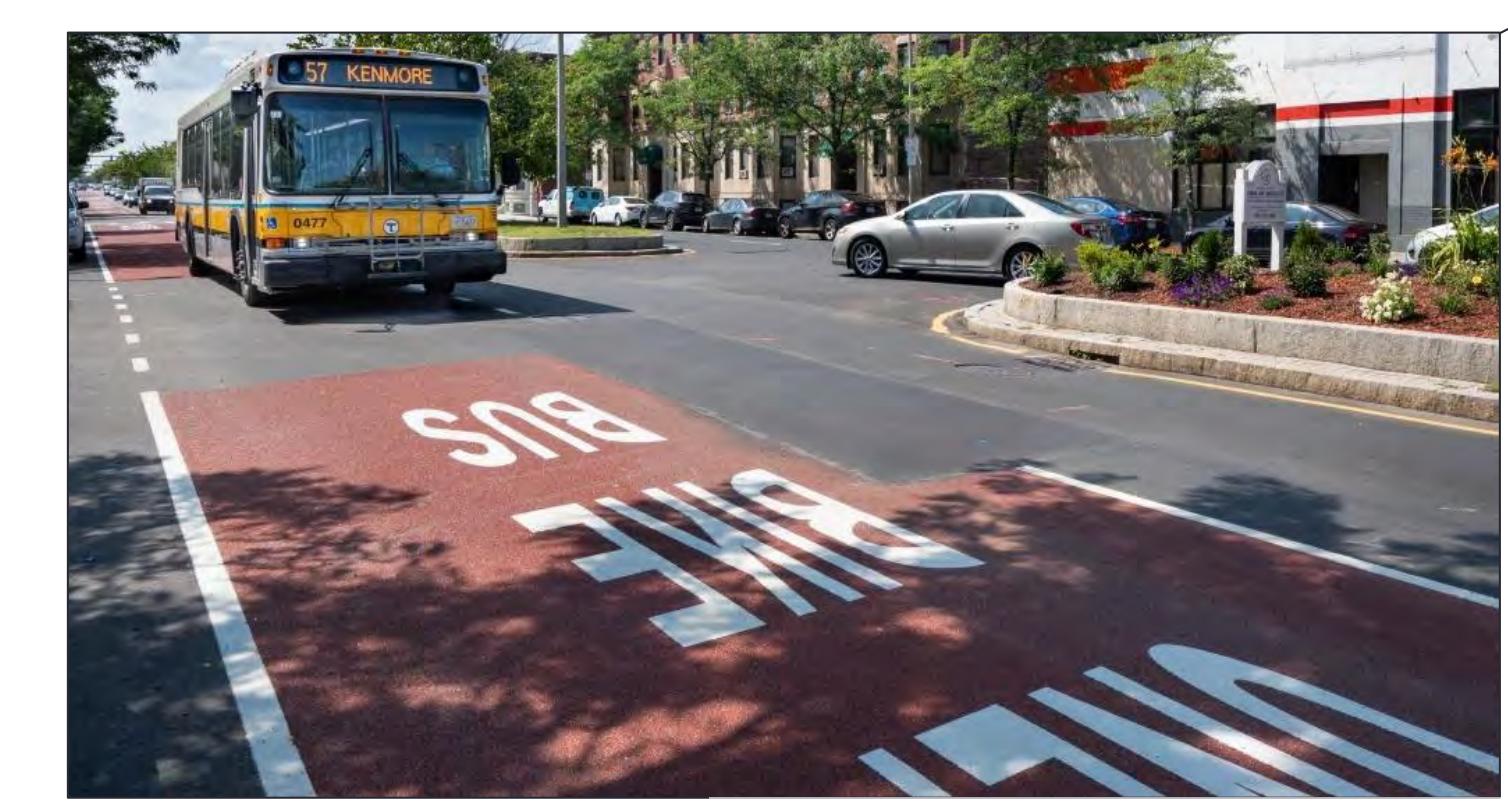
- Converts parking or travel lanes into bus only lanes
- Boarding occurs on sidewalks, which could require accessibility upgrades
- Could include bicycle accommodations (e.g., shared bus-bike lane)
- Could share lane with turning vehicles



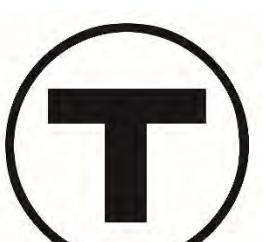
Cambridge and Watertown: Mount Auburn



Somerville: Broadway

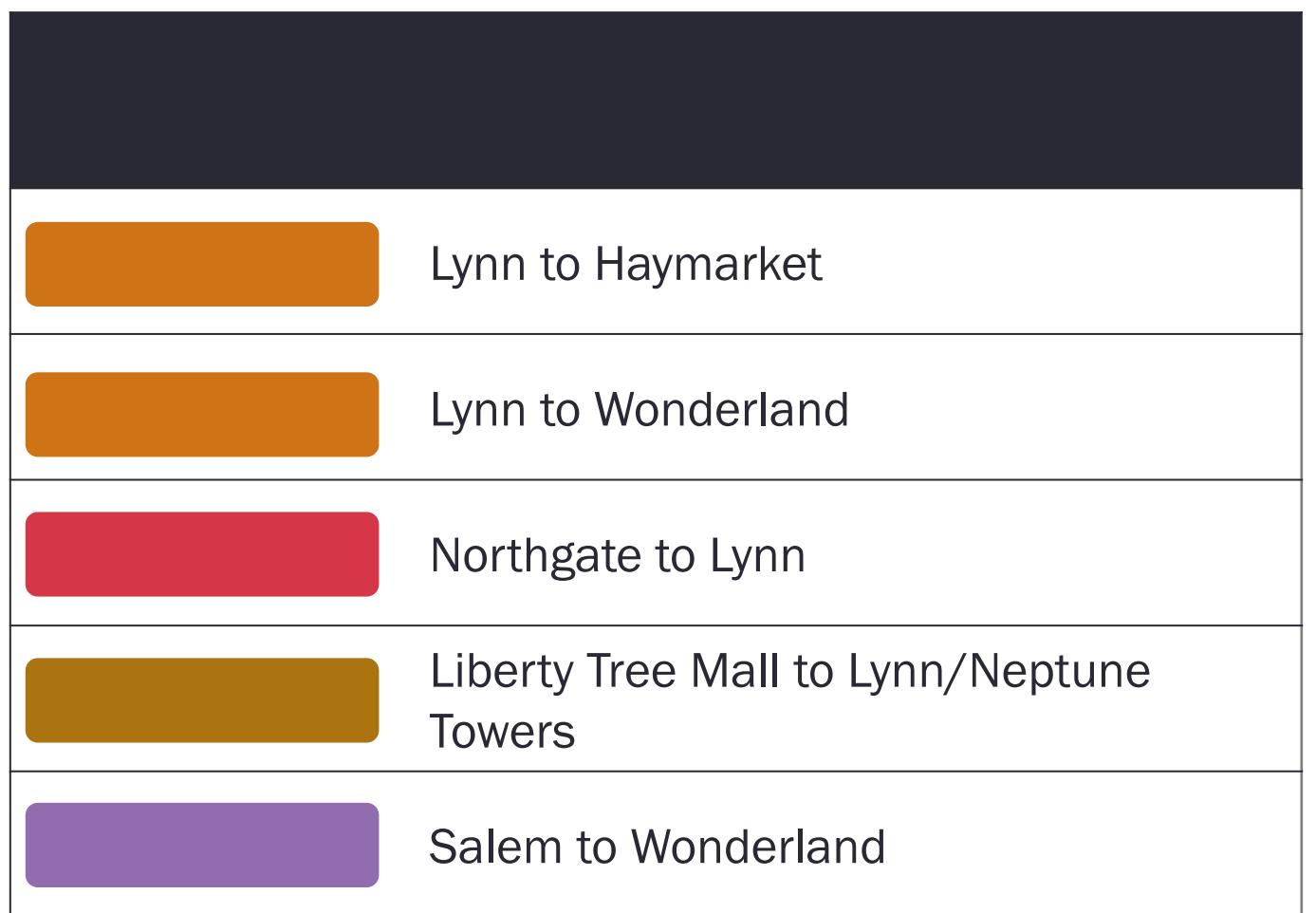


Allston: Brighton Avenue



Bus Lane Concept: Common Street and Market Street

Overview of the Common St / Market St Corridor



Note: Routes 439, 441, and 442 use Market St between the Lynnway and the Lynn Busway. Routes 436 and 456 use Market St between Broad St and the Lynn Busway. The majority of service on these routes use other corridors.

Bus Frequencies for This Corridor

The Common Street corridor sees up to 6 buses per hour in peak periods.
The Market Street corridor sees up to 10 buses per hour in peak periods.

Scheduled Fall 2019 weekday trips using corridor:

Segment	Common St	Market St
Eastbound	71 trips	98 trips
Westbound	71 trips	96 trips

Note: The number of trips on Market Street reflects the segment closest to Common Street. The number of daily trips varies on other segments of Market Street.

EB
WB

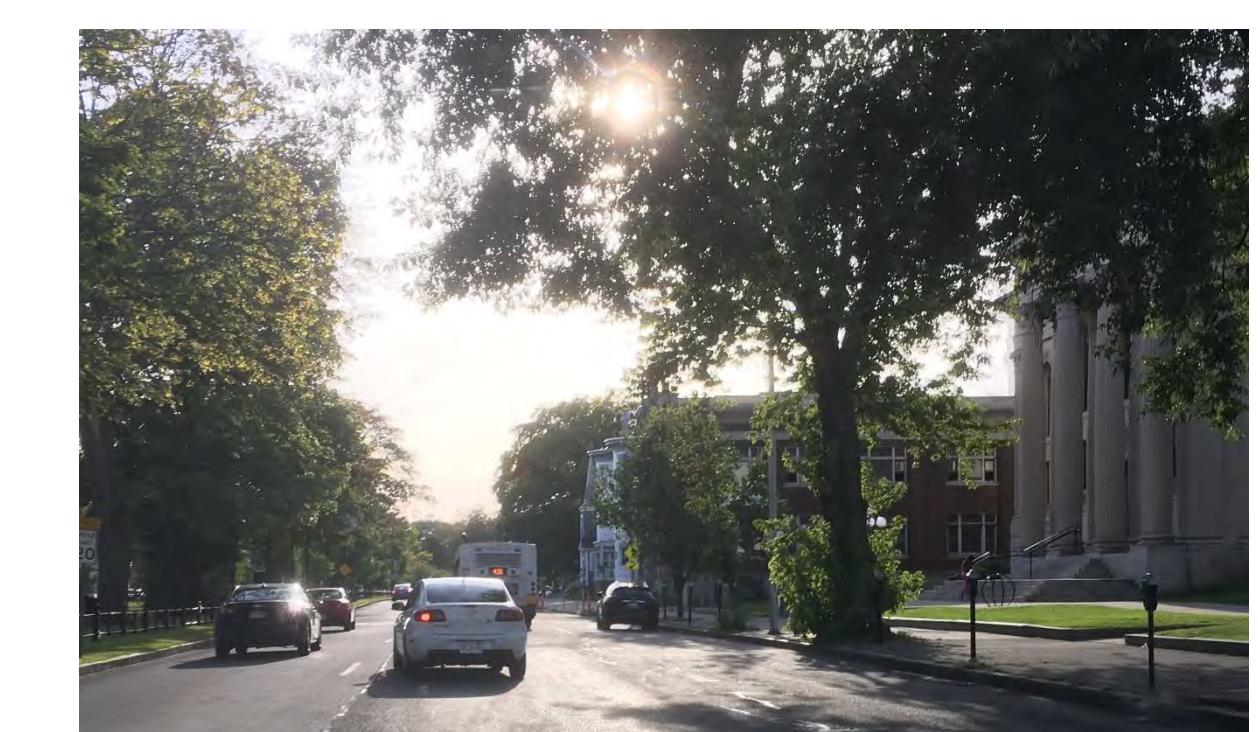


Adjacent On-Street Parking Available



A Parking survey found:

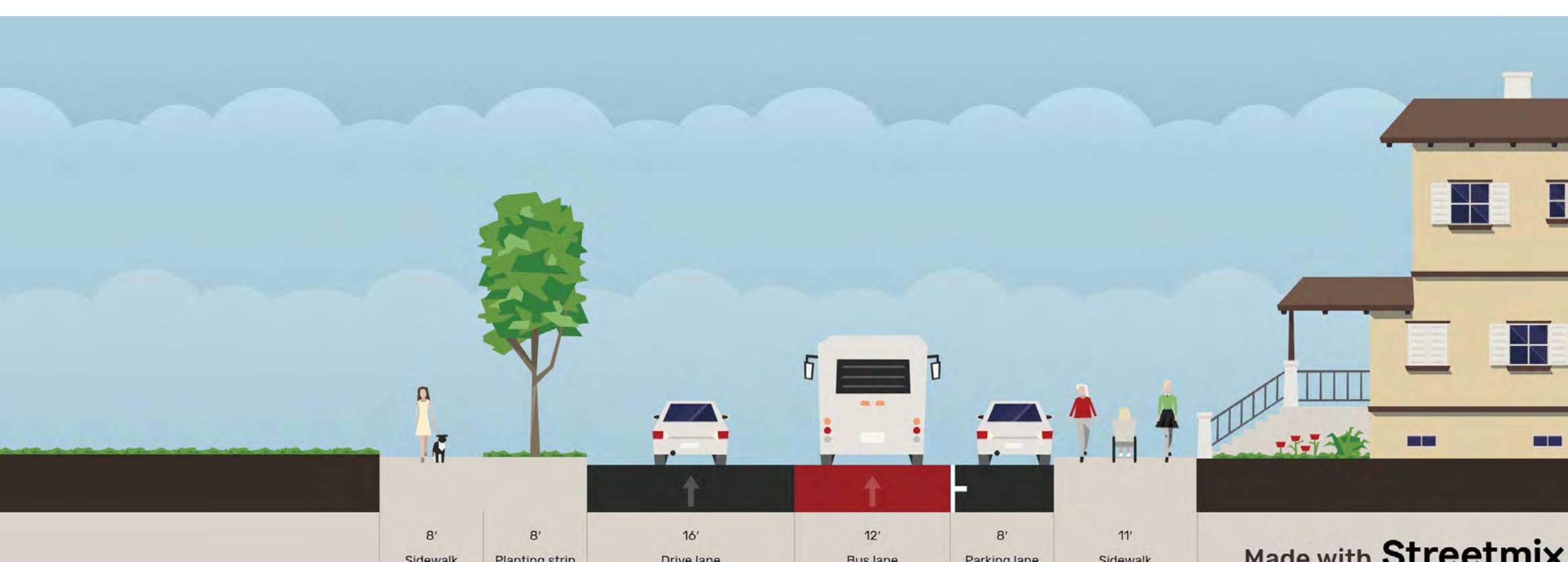
- On average, 49 cars were parked on South Common Street out of 99 spaces
- On average, 128 spaces were available on adjacent side streets.
- Max occupancy on South Common St. was at 6:00 PM, when 65 spaces were occupied. At that time, 111 spaces were available on side streets.



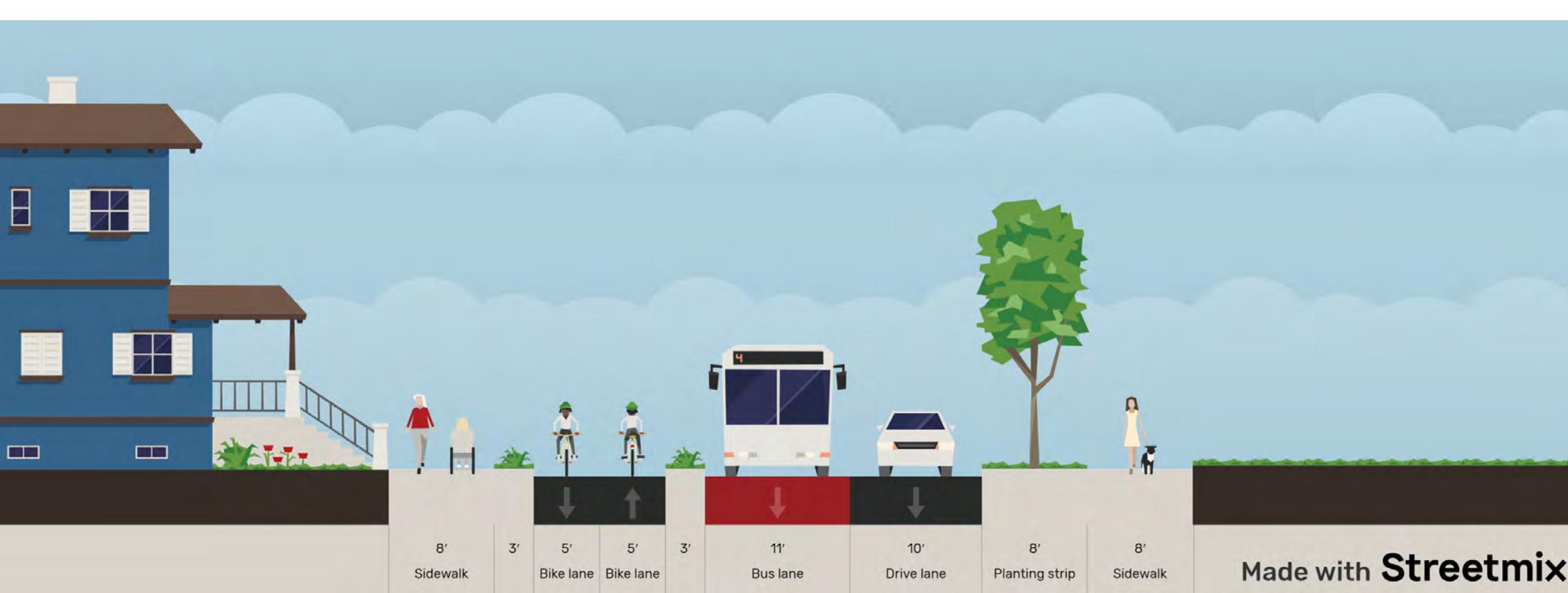
Why a Bus Lane on Common/Market St?

- All-day bus lanes along 1.0 miles of corridor can save over 8 minutes of travel time in the peak periods, improving bus speed and reliability.
- Travel for both bus and general traffic is smoother when the bus does not need to reenter general traffic lanes after stopping at each bus stop.
- Bus lane could enable buses to skip much of the traffic on Common St. and Market St.
- Bus lanes could be integrated with the Northern Strand
- Bus stops would be upgraded to be ADA-compliant and new amenities would be provided

Bus Lanes Save Time and Improve Reliability



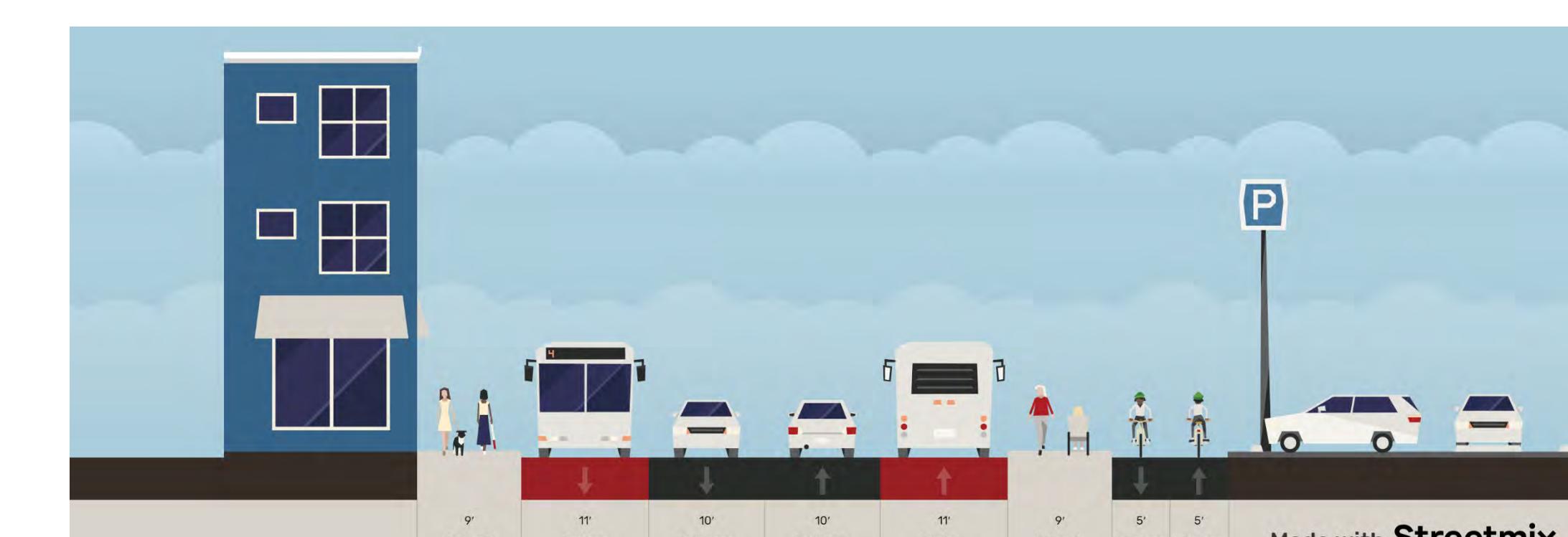
Conceptual cross-section of proposed bus lane on North Common Street looking from City Hall



Conceptual cross-section of proposed bus lane on South Common Street looking from City Hall

Common Street and Market Street From Western Ave to Lynn Busway

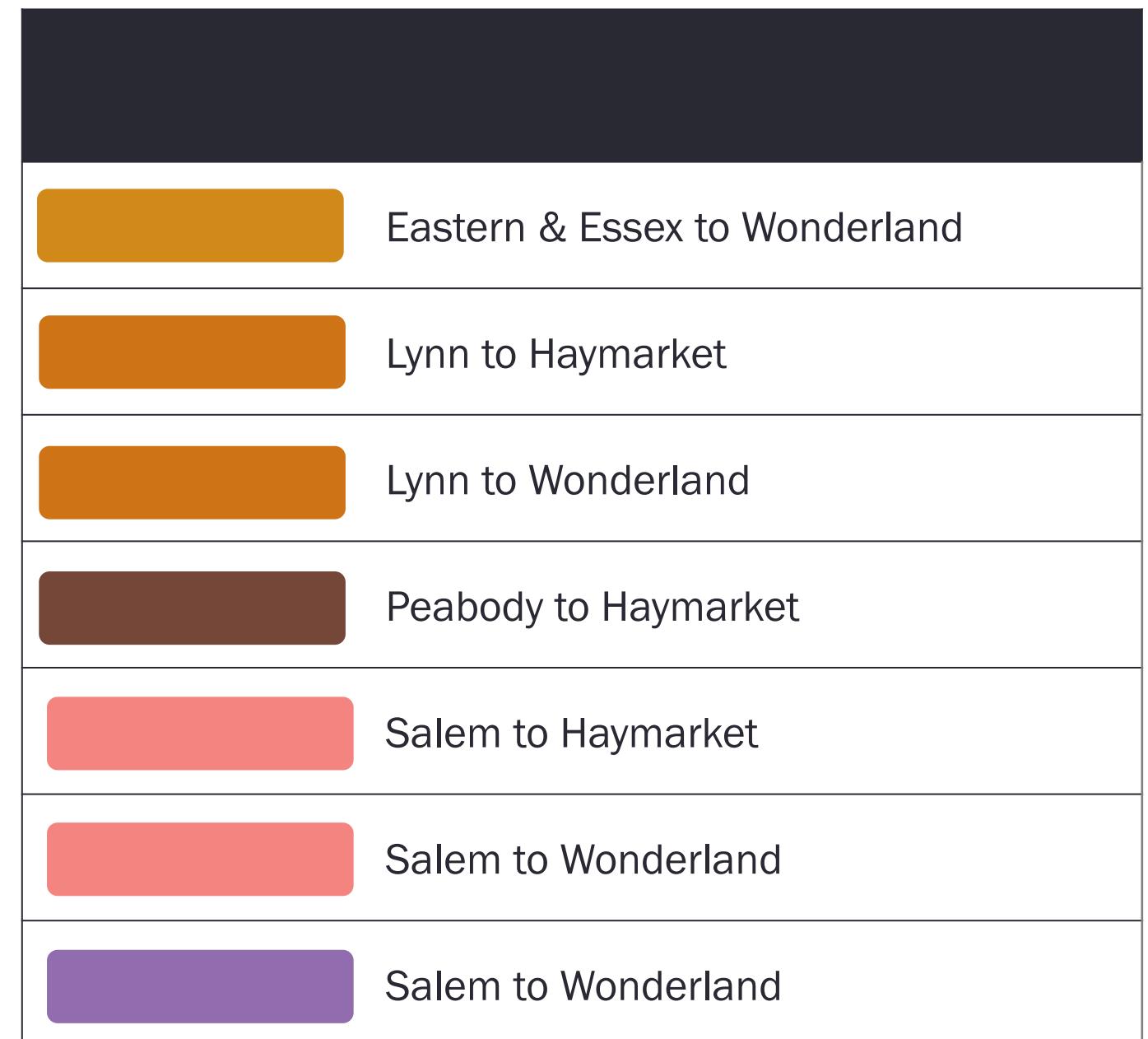
- Up to 5,500 bus passengers daily
- Experience up to 8 minutes of delay
- During peak period, up to 22% of roadway users are in a bus



Conceptual cross-section of proposed bus lanes on Market Street looking from City Hall

Bus/Bike Lane Concept: Western Avenue (Route 107)

Overview of the Western Ave (Route 107) Corridor



Note: Variants on Route 436, 441, 442, and 456 also use Route 107, but with limited service. The majority of service on these routes use other corridors.

This corridor sees up to 10 buses per hour in peak periods. Additional buses use this corridor when they are not in service to access the Lynn Bus Garage

Scheduled Fall 2019 weekday trips using Route 107:

Southbound	104 trips	78 trips	182 trips
Northbound	109 trips	91 trips	200 trips

*Non-revenue trips are estimated based on schedules.

SB
NB



Adjacent On-Street Parking Available



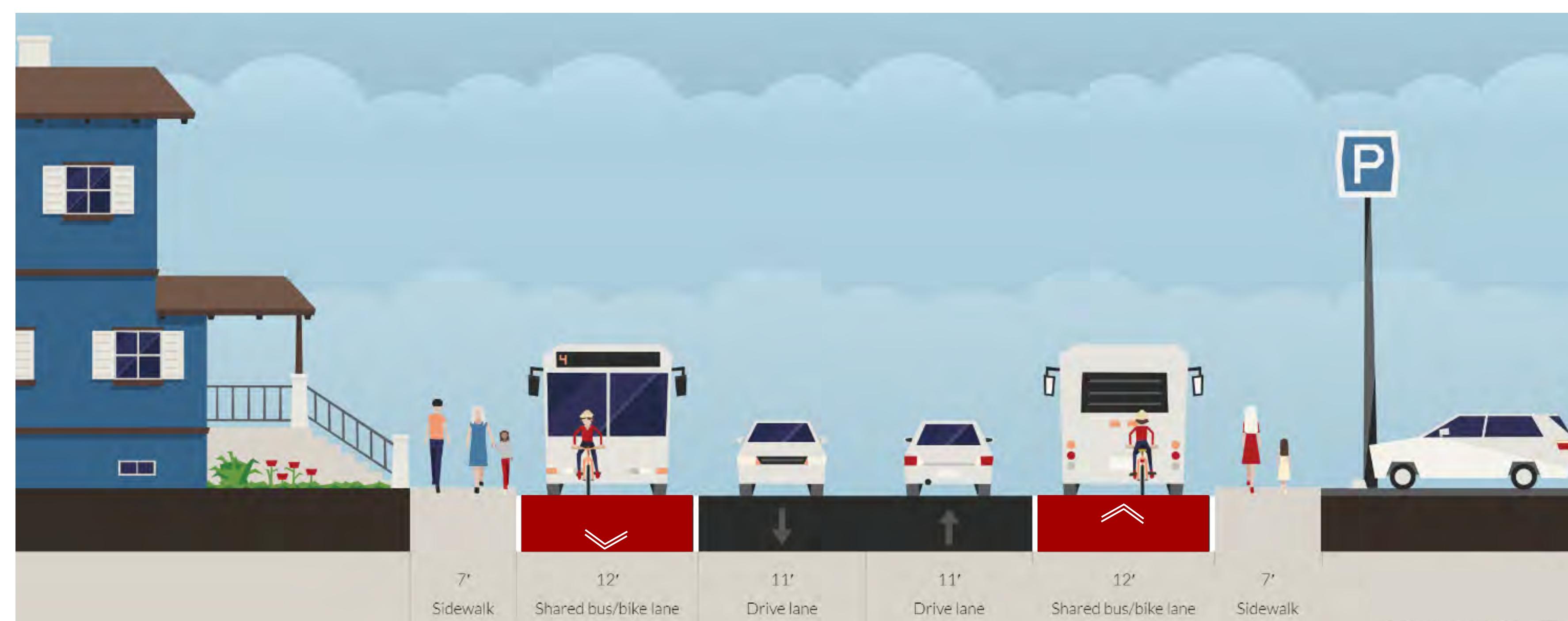
A Parking survey found:

- On average, 50 cars were parked on Western Avenue out of 149 spaces between the MBTA garage and Market Square
- On average, 110 spaces were available on adjacent side streets
- Max occupancy on Western Ave was at 2:00 PM, when 61 spaces were occupied. At that time, 130 spaces were available on side streets.

Bus Lanes Save Time and Improve Reliability

Why a Bus Lane on Western Ave?

- All-day bus lanes along 1.1 miles of Western Ave can save over 11 minutes of travel time in the peak periods, improving bus speed and reliability.
- Travel for both bus and general traffic is smoother when the bus does not need to reenter general traffic lanes after stopping at each bus stop
- Bus lane could enable buses to skip much of the traffic from the Common Street roundabout
- Bus lanes would also accommodate bicyclists
- Bus stops would be upgraded to be ADA-compliant and new amenities would be provided



Conceptual cross-section of proposed bus/bike lane between Saugus River and Market Square

Western Ave (Route 107) From Saugus River to Common Street

- Up to 9,200 bus passengers daily
- Experience up to 11 minutes of delay
- During peak period, up to 41% of roadway users are in a bus



Evaluating the Market for Ferry Service to Boston

Why Consider Ferry Service?

- Provides a single-seat ride from Lynn to south side of downtown Boston and Seaport district
- Alternative to commuter rail, express bus, Blue Line
- More attractive service for some travelers

Service Concept

- One trip each direction per weekday
 - To either Long Wharf or Fan Pier
- 250-passenger vessel
- Travel time ~40 minutes
- Fare similar to commuter rail fare (\$7 one-way)

Analysis Approach

- Use trip destination and travel time data from cell phone data
- Determine total number of peak period trips from Lynn access area to Boston destination areas
- Consider increase in trips based on projected 2018 – 2040 job growth

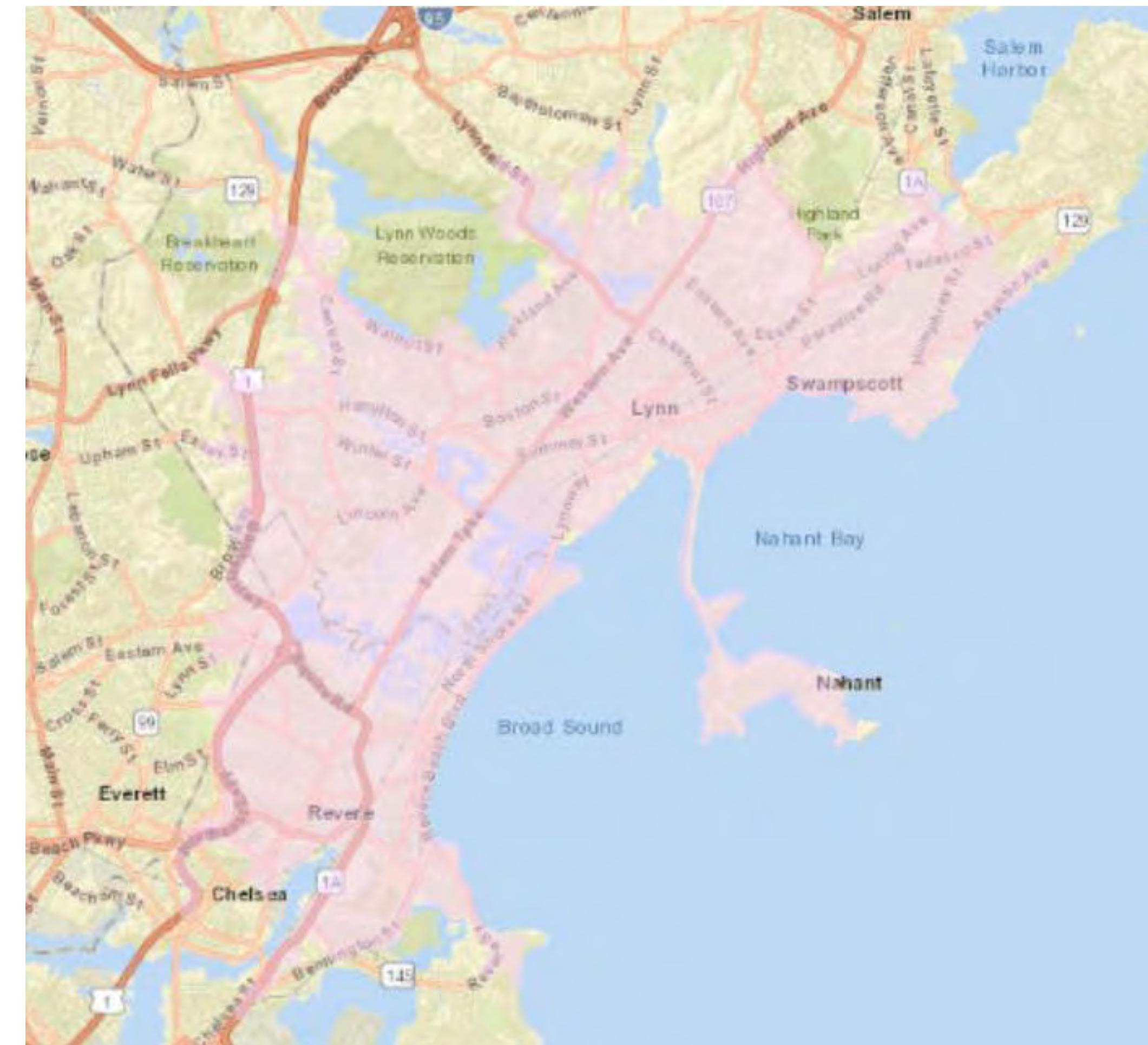
Destination Area	2018	2040	Percent Growth
Seaport	22,000	36,300	65%
Downtown Boston	157,800	169,800	8%

Source: MassDOT data and Silver Line Capacity Study

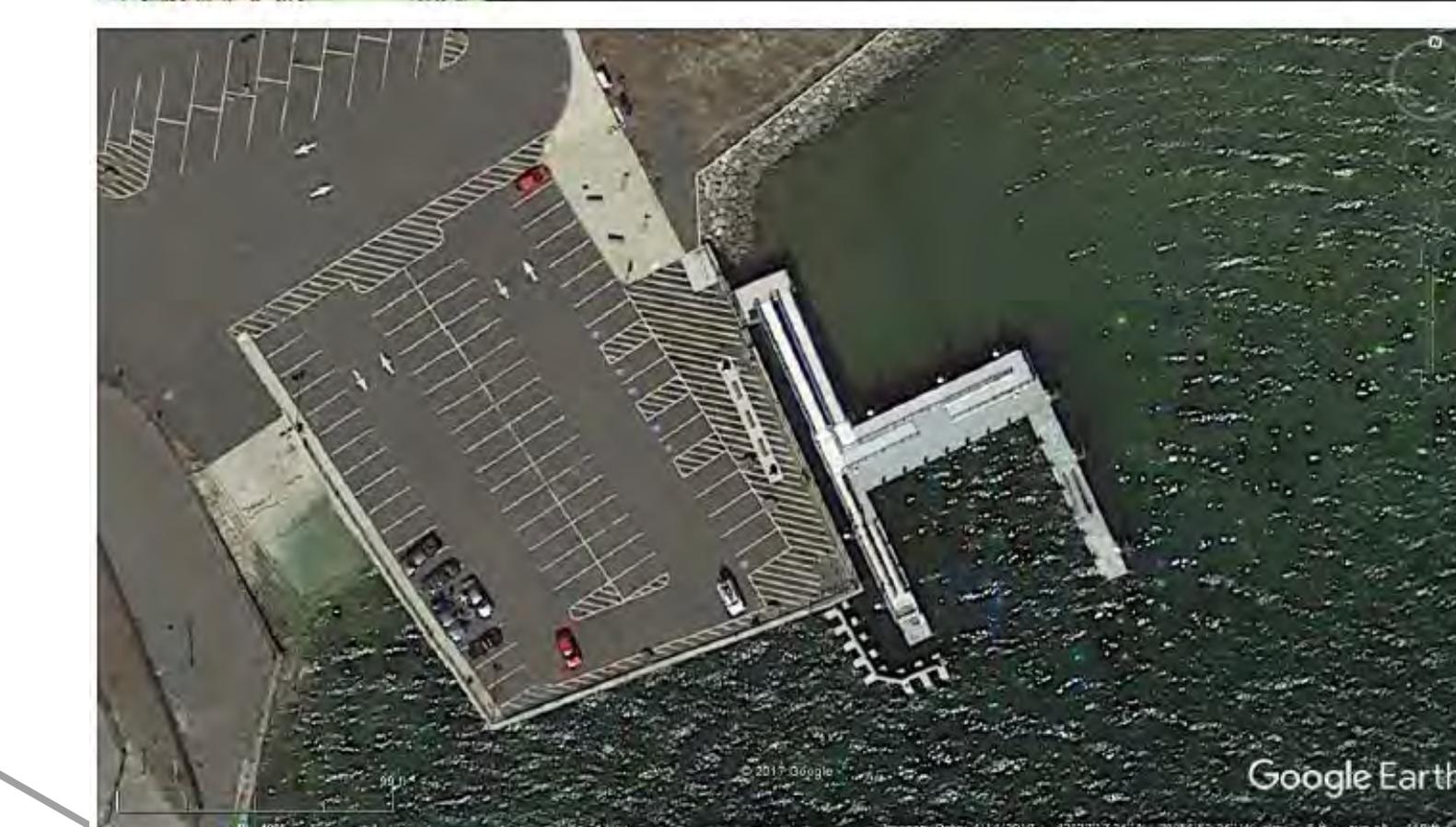
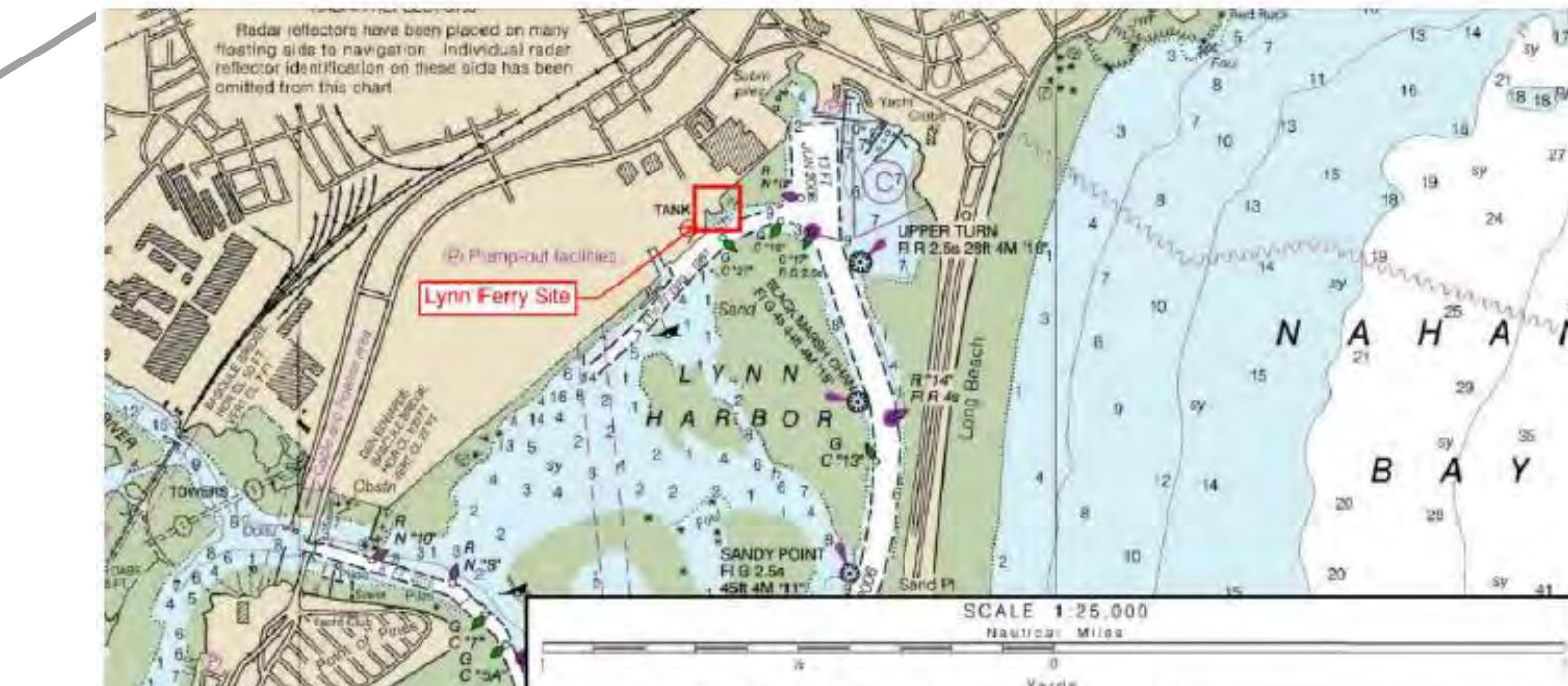
- Look at demographic characteristics of travel markets
- Compare travel time competitiveness of ferry vs. other transit and driving
- Estimate range of ridership based on travel market size and mode share from similar services
- 15-minute drive time consistent with commuters' demonstrated behavior in accessing rail and ferry
- Determine service characteristics, access needs, and land use conditions that could enhance or support a market for ferry

Markets Served

Lynn – Blossom Pier: 15-minute drive

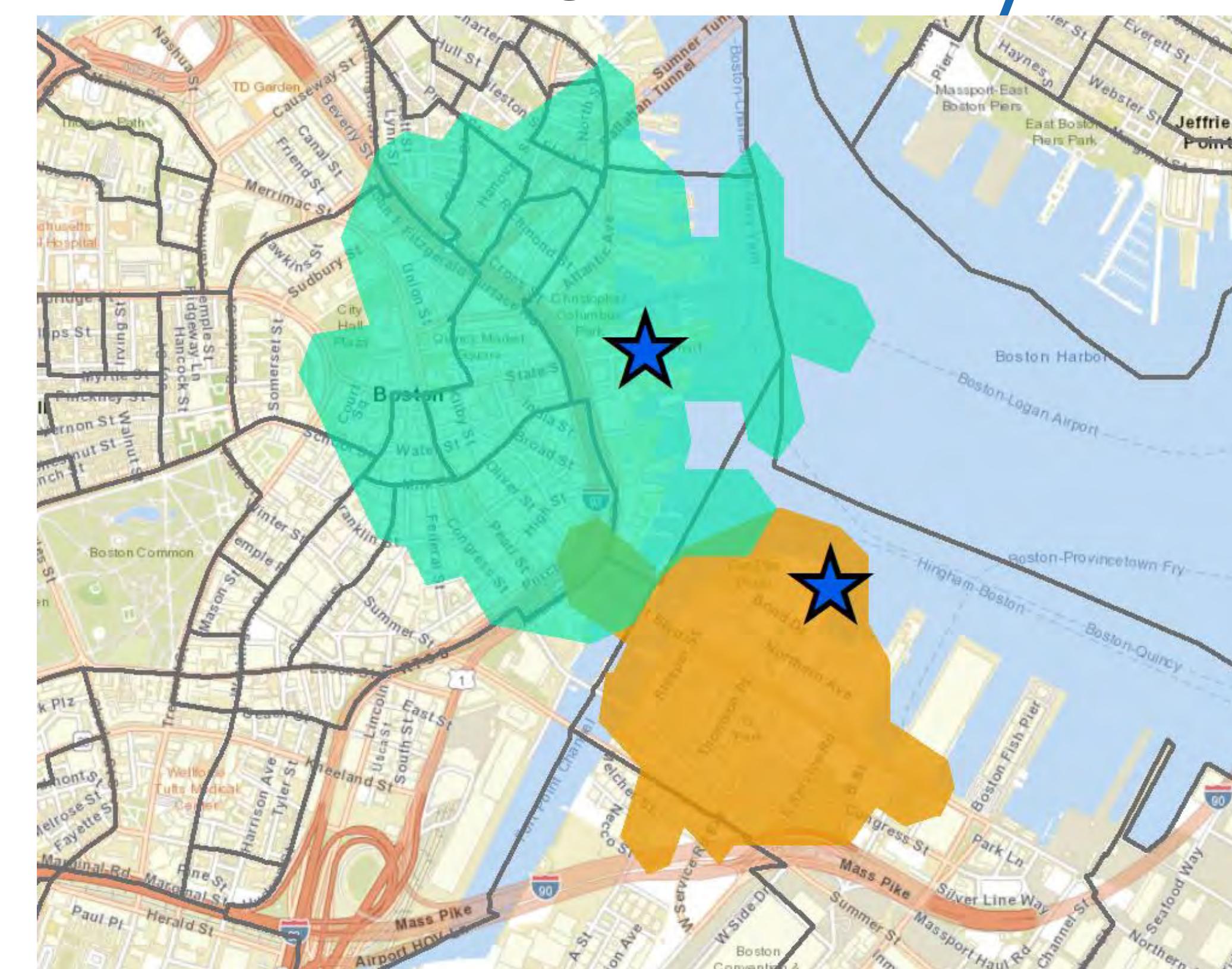


Lynn landing site



2019 Comprehensive Boston Harbor Water Transportation Study

Downtown Boston – Long Wharf



FERRY PROCUREMENT

- MassDOT is currently working with the City of Lynn on procurement
- Proposals for a vessel expected this month

2019 Comprehensive Boston Harbor Water Transportation Study

Mode	Total Time	Walking (Access/Egress)	Transfer	Riding	Trip Frequency
To: Government Center (Downtown)					
Auto – Low Est.	0:35			0:35	
Auto – High Est.	1:20			1:20	
Public Transit	0:54	0:08	0:07	0:39	0:20
Commuter Rail	0:45	0:15	0:04	0:26	0:16
Ferry via Long Wharf North	0:54	0:13		0:41	
To: Boston Convention & Exhibition Center (Seaport)					
Auto – Low Est.	0:35			0:35	
Auto – High Est.	1:10			1:10	
Public Transit	1:18	0:30		0:48	1:10
Commuter Rail	1:21	0:25	0:22	0:34	0:16
Ferry via World Trade Center	0:52	0:14		0:38	



Boston Harbor Now Water Transportation Study, 2017



Bus Lane Concept: Lynnway (Route 1A)

Overview of the Lynnway (Route 1A) Corridor

Route	Origin-Destination
439	Nahant to Lynn / Wonderland*
441	Marblehead to Wonderland
442	Marblehead to Wonderland

Note: Select trips also start/end at Wonderland Station

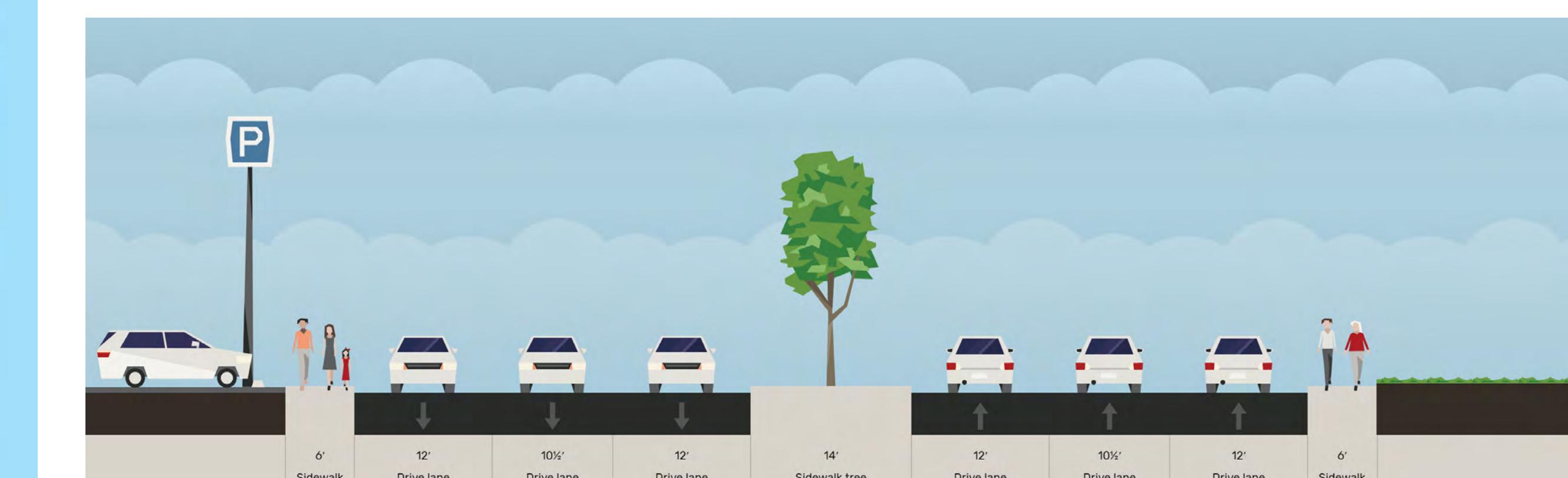
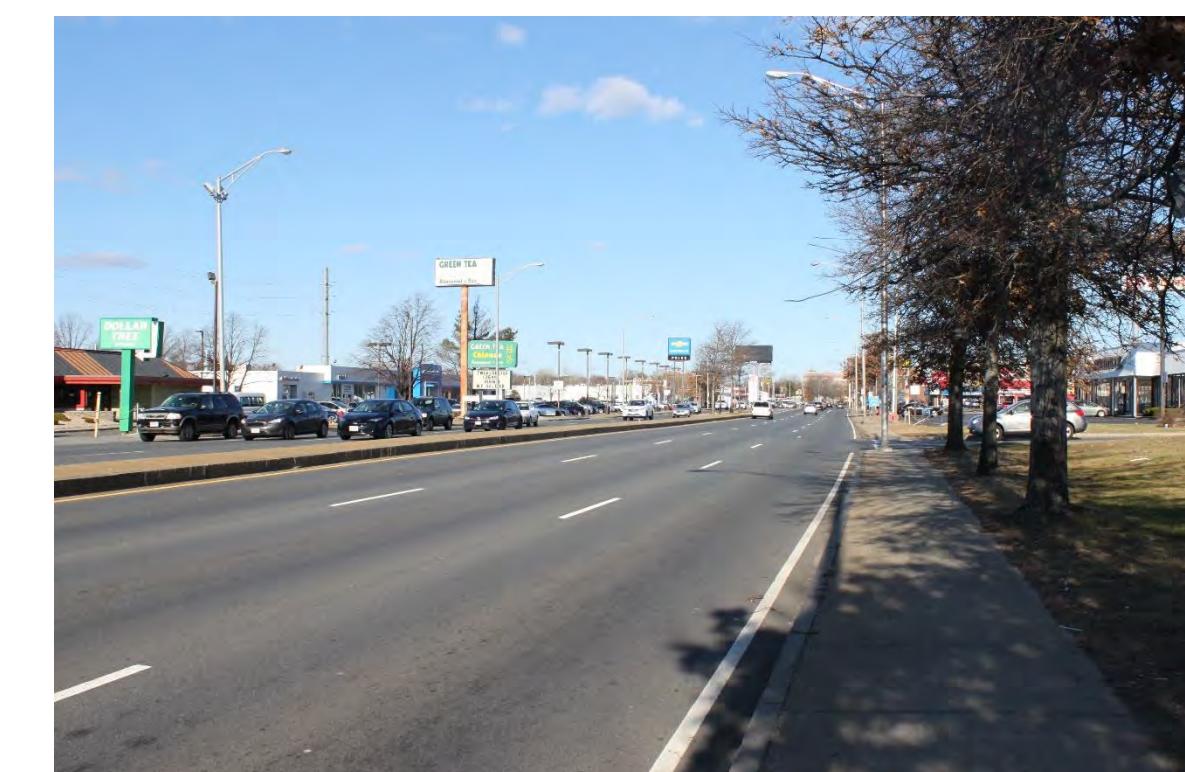
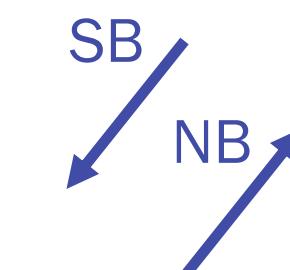
Bus Frequencies for This Corridor

Bus Frequencies

This corridor sees up to 8 buses per hour in peak periods.

Scheduled Fall 2019 weekday *trips* using Route 1A:

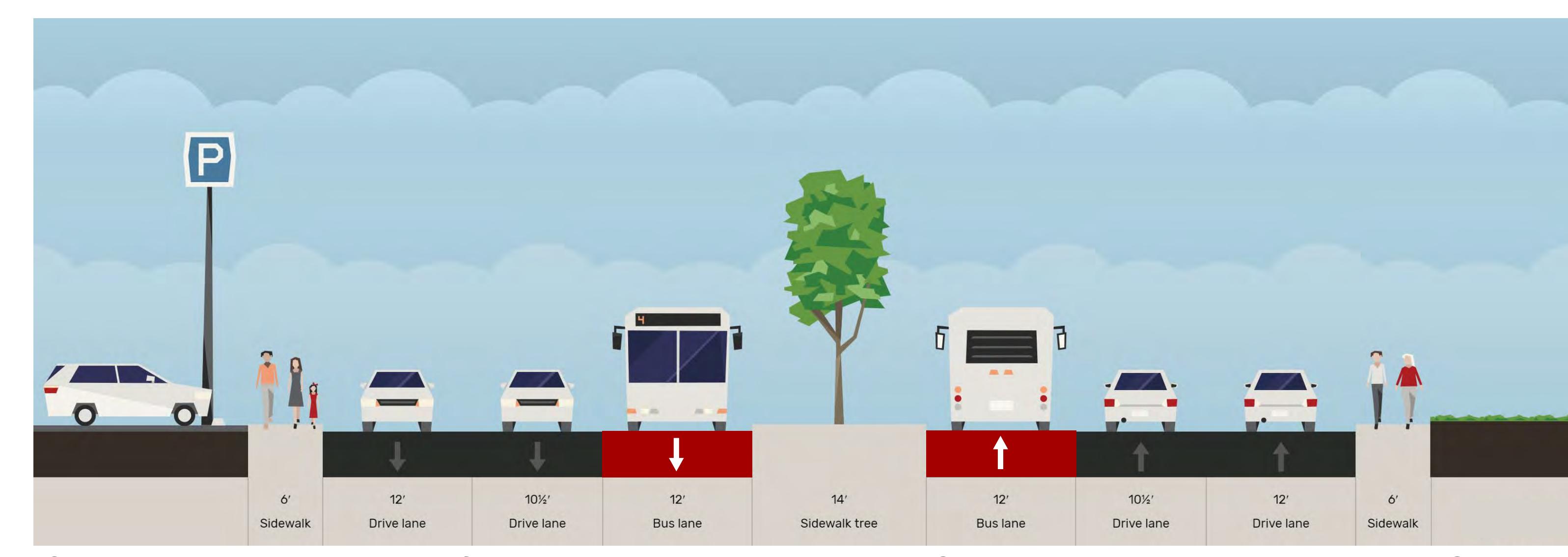
Segment	Revenue
Southbound	183 trips
Northbound	184 trips



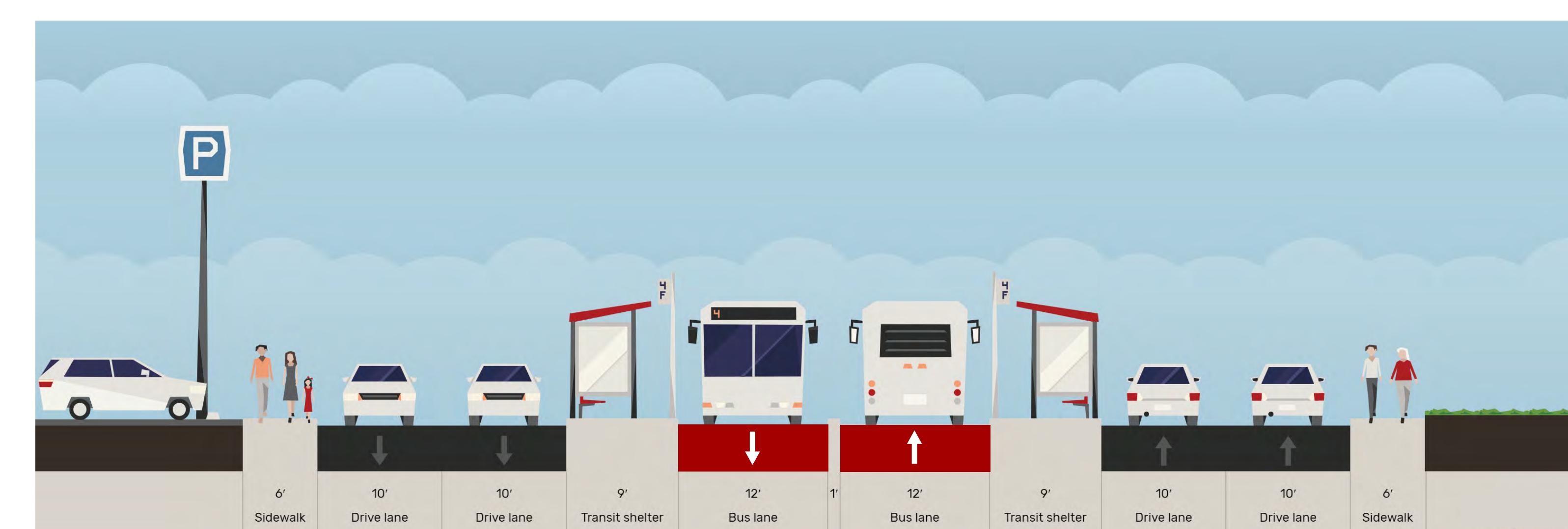
Typical cross-section of existing Lynnway

Why a Bus Lane on Lynnway?

- All-day bus lanes along 1.5 miles of Lynnway can save up to 6 minutes of travel time in the peak periods, improving bus speed and reliability.
- Opportunity to upgrade the transit options in anticipation of new development
- Bus lane and transit signal priority could enable buses to skip much of the traffic associated with turning movements at intersections
- Boarding islands would improve the pedestrian experience crossing Lynnway
- Bus stops would be upgraded to be ADA-compliant and new amenities would be provided



Conceptual cross-section of proposed bus lanes between Gen. Edwards Bridge and Market Street



Conceptual cross-section of proposed bus platforms along Lynnway

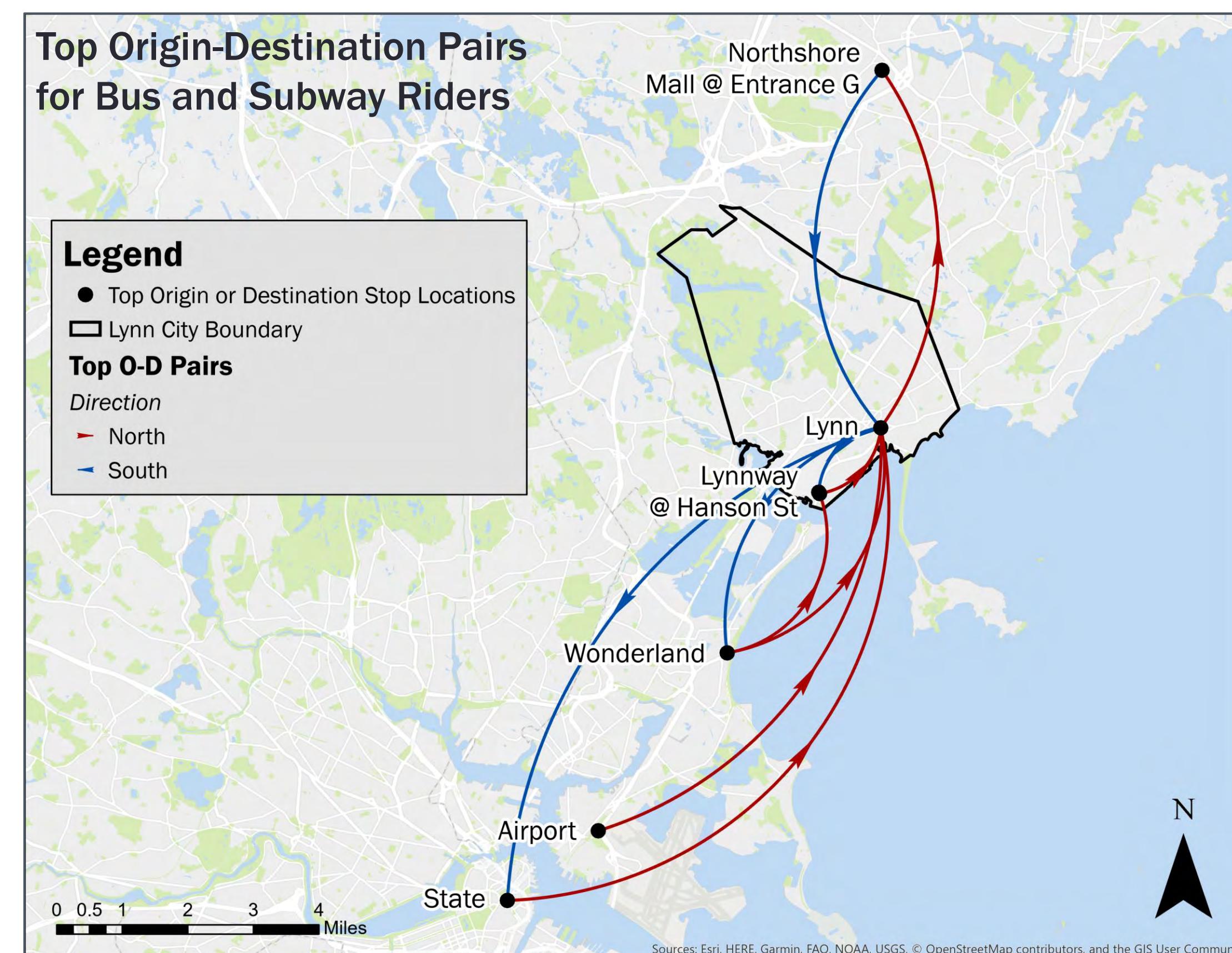
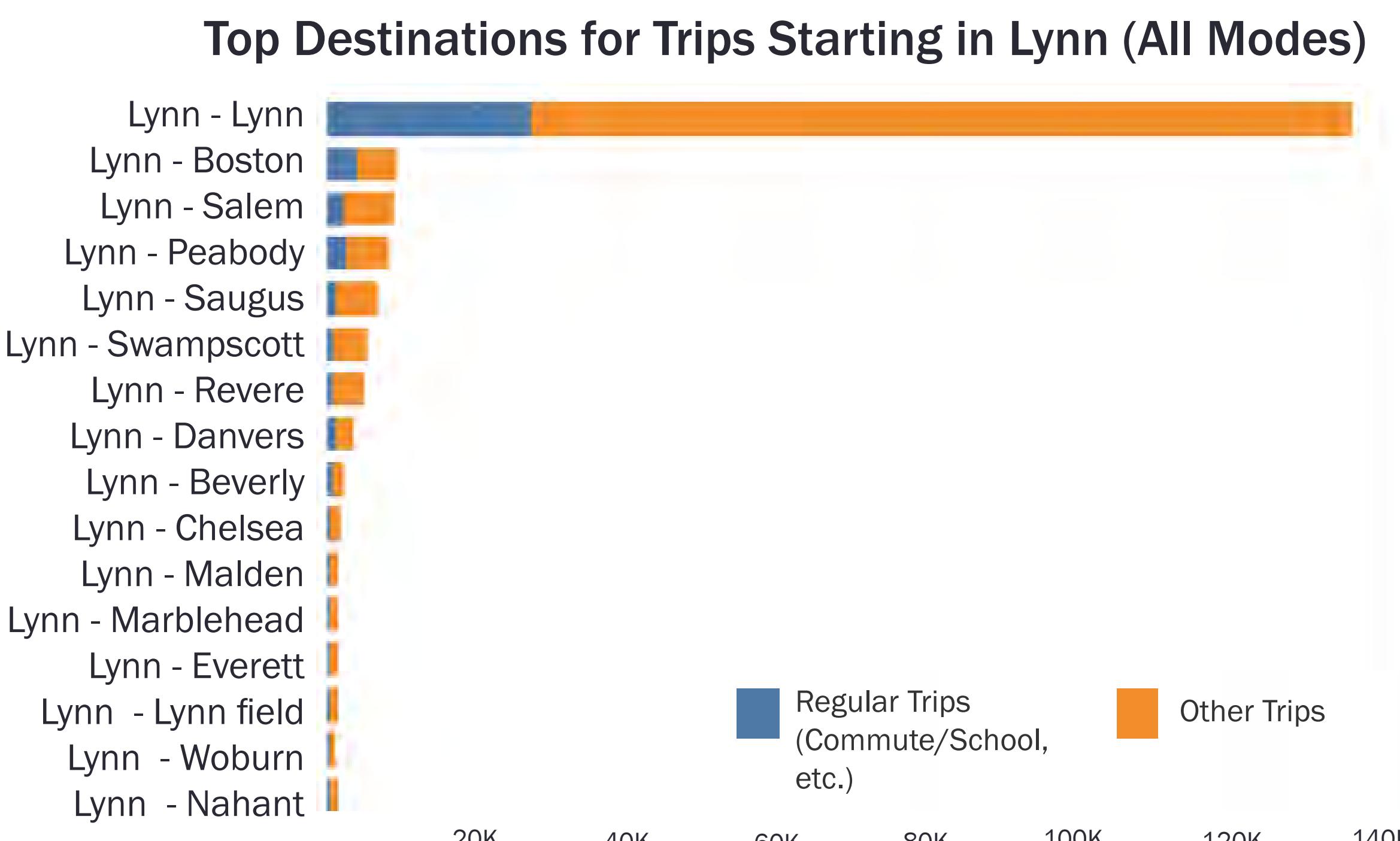
Lynnway (Route 1A) From Saugus River to Common Street

- Up to 7,600 bus passengers daily
- Experience up to 6 minutes of delay
- During peak period, up to 11% of roadway users are in a bus

Existing Conditions: Understanding Current Travel Patterns and Needs

Takeaway 1

The majority of trips from Lynn are within Lynn or within the North Shore, but connections to Boston are important for job access and economic development.



Takeaway 2

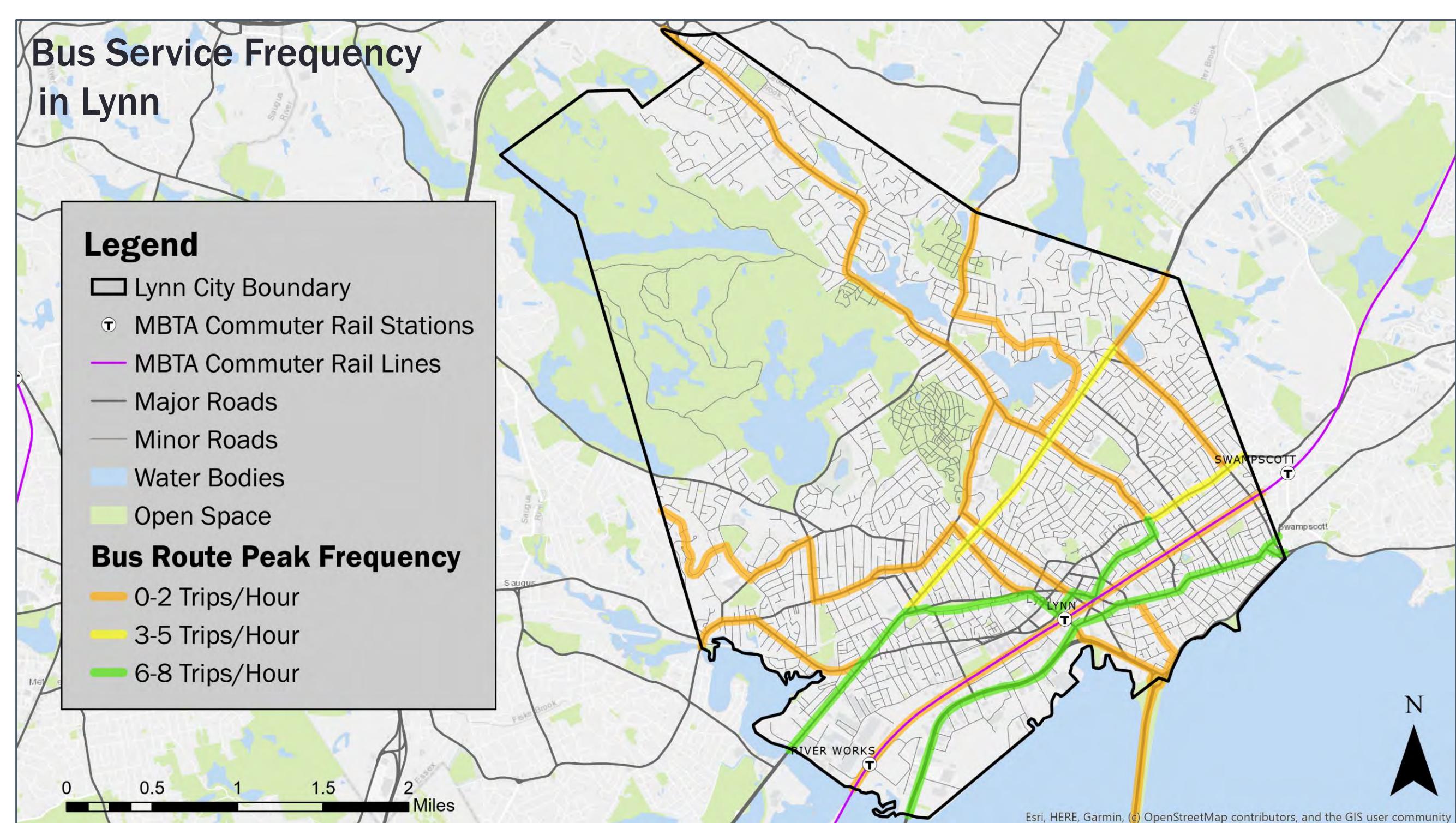
Rider-friendly bus amenities are not widespread in Lynn, though most areas are within a quarter-mile walk from a transit stop.



Only 166 of 408 bus stops in Lynn are considered accessible by the MBTA.

Takeaway 3

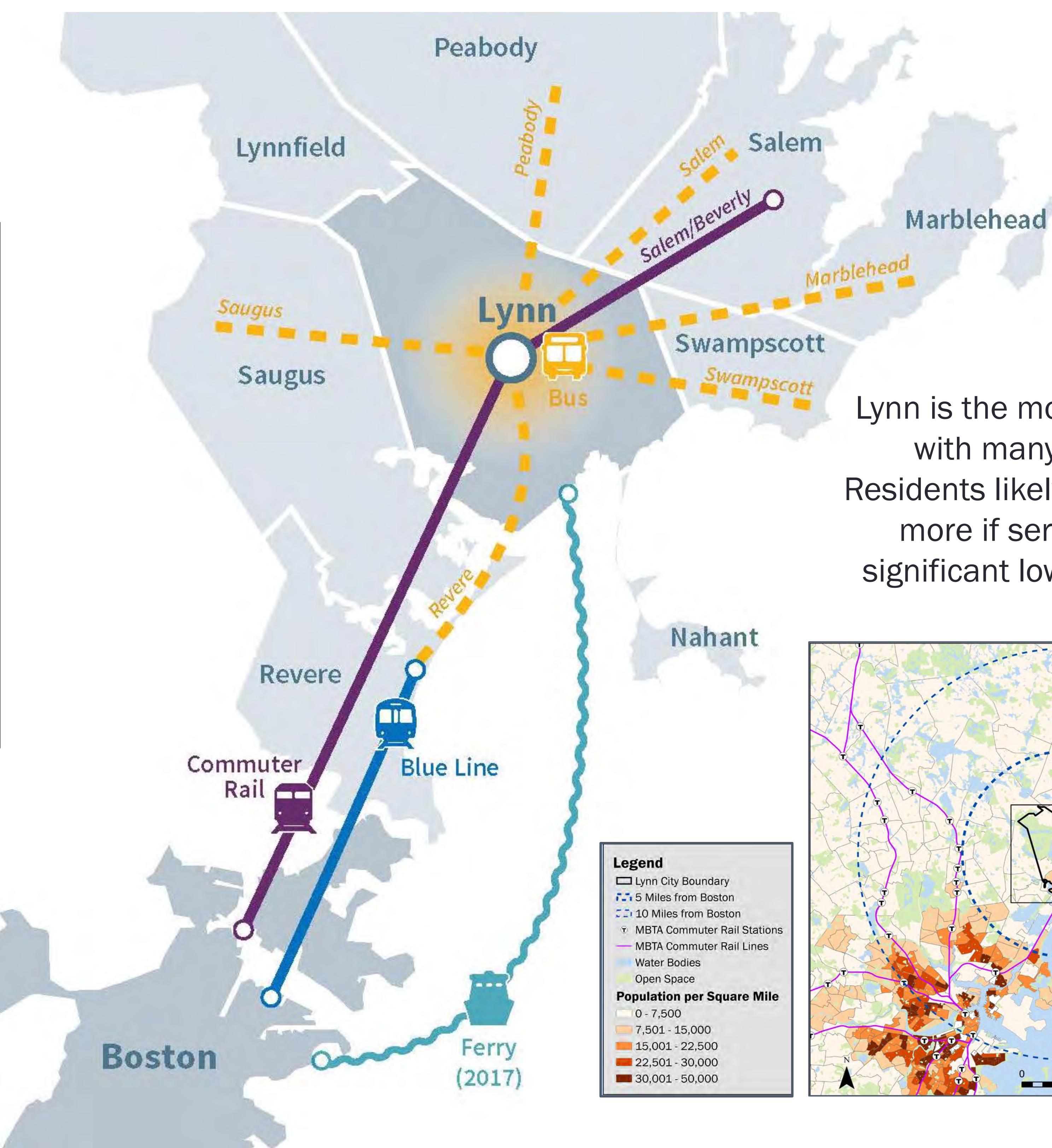
While existing bus routes serve most major destinations, peak service is limited, especially to North Shore destinations such as Peabody or Saugus.



Takeaway 5

The commuter rail garage has additional capacity and rail service has the potential for higher frequency, but may currently lack capacity to absorb additional riders during the peak period.

Central Square garage occupancy is typically below 55% for both weekdays and weekends.



Takeaway 4

Some corridors have high levels of bus delay.

Delays on Common Street, Western Avenue and Broad Street cause median, peak-hour travel times over 50% higher than in free-flow conditions.

Takeaway 6

Lynn is the most densely populated community in the North Shore, with many zero-car households, yet transit use is relatively low. Residents likely use other means to get around and may use transit more if service better met their needs. Downtown Lynn also has significant lower-income and EJ populations that may rely more on the bus. Fare costs may pose a barrier to transit use.

